



Significance Determination Thresholds California Environmental Quality Act (CEQA)

City of San Diego

**Development Services Department
Land Development Review Division
Environmental Analysis Section**

November 2004



Land Development
Review Division
(619) 446-5460

Note: This draft document contains initial study questions. These questions have been provided for discussion purposes only, and will be removed upon final approval of the thresholds.

REVISION HISTORY	
Date	Comments
January 1991	Prior revision
January 1994	Prior revision
May 1999	Prior revision
April 2001	Prior revision
February April 2004 June, July October <u>November</u> 2004	Updated

TABLE OF CONTENTS

Table of Contents.....	<i>i</i>
Acronyms, Initialisms, and Abbreviations	<i>ii</i>
Glossary.....	<i>iv</i>

I. INTRODUCTION..... 1

II. ENVIRONMENTAL ISSUES

A. Agricultural Resources.....	2
B. Air Quality and Odor	4
C. Biological Resources.....	18
D. Geologic Conditions	25
E. Growth Inducement.....	28
F. Health & Safety.....	29
G. Historical Resources	35
H. Hydrology	42
I. Land Use	44
J. Mineral Resources.....	46
K. Noise	48
L. Paleontological Resources	55
M. Public Services and Facilities	57
N. Public Utilities.....	62
O. Transportation/Circulation/Parking	74
P. Visual Effects and Neighborhood Character.....	71
Q. Water Quality.....	75
R. Cumulative Impacts	78
S. Mandatory Findings of Significance.....	80
T. Use of Regulatory Standards as Thresholds of Significance	82

DRAFT

Acronyms, Initialisms, and Abbreviations

AAQA	Ambient Air Quality Standards
ADT	Average Daily Traffic
AAOZ	Airport Approach Overlay Zone
AEOZ	Airport Environs Overlay Zone
APCD	Air Pollution Control District
APE	Area of Potential Effects
AQIA	Air Quality Impact Assessment
AQMD	Air Quality Management District
BDR	Building Development Review Division
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCR	Code of California Regulations
CEQ	United States Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	United States Code of Federal Regulations
CGS	California Geologic Survey
CNEL	Community Noise Equivalent Level
CLUP	Comprehensive Land Use Plan
CO	Carbon Monoxide
CUP	Conditional Use Permit
dB	decibel
DEH	County Department of Environmental Health
DSD	Development Services Department
EAS	Environmental Analysis Section
EDU	Equivalent Dwelling Unit
EIR	Environmental Impact Report
EMF	Electric and Magnetic Fields
EPA	United States Environmental Protection Agency
ESD	Environmental Services Department
ESL	Environmentally Sensitive Lands
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FPP	Flood Plain Fringe
FW	Flood Way
GI	Geologic investigation
GR	Geologic Report
HAZMAT	hazardous materials
HUD	U.S. Department of Housing and Urban Development
LDC	Land Development Code
LEA	Local Enforcement Agency
LDR	Land Development Review

LOS	Level of Service
MHPA	Multi-Habitat Planning Area
MRZ	Mineral Resource Zone
MSCP	Multiple Species Conservation Program
$\mu\text{g}/\text{m}^3$	microgram per cubic meter
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_x	Oxides of Nitrogen
OHP	Office of Historic Preservation
O_3	Ozone
ppm	parts per million
PM_{10}	Respirable Particulate Matter
$\text{PM}_{2.5}$	Fine Particulate Matter
REDI	Regional Economic and Demographic Mapping System
ROG	Reactive Organic Gases
RPO	Resource Protection Ordinance (outdated)
RPZ	Runway Protection Zone
RTK	Right to Know
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SFHA	Special Flood Hazard Area
SDG&E	San Diego Gas and Electric Company
SANDAG	San Diego Regional Association of Governments
SMARA	Surface Mining and Reclamation Act
SIP	State Implementation Plan
SO_x	Oxides of Sulfur
SR	Soils Report
SUSMP	Standard Urban Storm Water Mitigation Plan
SWPPP	Stormwater Pollution Prevention Plan
TCM	Transportation Control Measures
TLV	Threshold Limit Value
VOC	Volatile Organic Compounds

Glossary

(to be provided)

DRAFT

DRAFT

I. INTRODUCTION

The purpose of these Significance Determination Thresholds (also known as Guidelines) is to assist City of San Diego staff, project proponents, and the public in determining whether, based on substantial evidence, a project may have a significant effect on the environment under Section 21082.2 of the California Environmental Quality Act¹ (CEQA), and therefore the environmental impact requires mitigation. They are not intended to be stand alone policies and are to be used in conjunction with commonly accepted professional standards, judgments, and practices. These guidelines should be updated when necessary in response to changes in CEQA, case law, and refinement of recognized scientific analysis of impact thresholds. The City of San Diego has been using these thresholds since 1991 and has provided regular updates. Section 15064.7² of the CEQA Guidelines encourages public agencies to develop and publish such analytical tools. These Thresholds include information on 19 environmental issues as listed in, and to be used in conjunction with, the Initial Study Checklist. They provide technical guidance in evaluating the potential significance of a project's environmental impact and provide a consistent and objective basis for determining the level of impacts. They also recognize that the level of impacts depend upon a multitude of factors such as project setting, design, construction, etc.

¹ State of California Public Resources Code, Division 13. <http://www.leginfo.ca.gov/calaw.html>

³ Source: San Diego Air Pollution Control District 9SDAPCD). 2001 Annual Report. <http://www.sdapcd.co.san-diego.ca.us/annual/ANNUAL.PDF>. Designation for PM 2.5 and the 8-hour ozone standard were pending at time of this revision.

II. ENVIRONMENTAL ISSUES

A. AGRICULTURAL RESOURCES

A significant impact on agricultural resources may result from a project which involves the conversion of Prime Farmland*, Unique Farmland**, or Farmland of Statewide Importance*** (as defined by the State of California on its Important Farmlands Map) to non-agricultural use. In San Diego, such land is generally located in portions of the undeveloped northern and southernmost areas of the City.

* Prime Farmland is land with the best combination of physical and chemical features for the production of agricultural crops. It includes:

- All land which qualifies for a rating as Class I or II on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (formerly the Soil Conservation Service) Land Use Capability classifications. The Capability classification indicates the suitability of soils for most kinds of crops. Groupings are made according to the limitation of the soils when used to grow crops and the risk of damage to soils when they are used in agriculture. Soils are grouped in eight classes, from I through VIII, with Group I having the highest rating.
- Land which qualifies for a rating of 80 to 100 on the Storie Index. The Storie Index expresses numerically (based on a 100-point scale) the relative degree of suitability, or value of a soil for general intensive agriculture. Profile characteristics, soil surface texture, slope, and other factors such as drainage and salinity are considered in the Index rating.
- Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre, as defined by the USDA.
- Land planted with fruit or nut bearing trees, vines, bushes, or crops that have a non-bearing period of less than five years and which will normally return, during the commercial bearing period on an annual basis, from the production of unprocessed agricultural plant production, not less than \$200 per acre.
- Land which has returned from the production of unprocessed agricultural plant products at an annual gross value of not less than \$200 per acre for three of the previous five years.

** Unique Farmland is land of lesser quality soils used for the production of the state's leading agricultural cash crops.

***Farmland of Statewide Importance is land with a good combination of physical and chemical features for the production of agricultural crops.

INITIAL STUDY CHECKLIST QUESTIONS

The following are from the City's Initial Study Checklist and provides guidance to determine potential significance to Agricultural Resources:

Would the proposal result in:

1. Conversion of a *substantial amount* of Prime Farmland*, Unique Farmland** or Farmland of Statewide Importance*** (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
2. Conflict with existing zoning for agricultural use, or Williamson Act contract?
3. Involve other changes in the existing environment which due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

SIGNIFICANCE THRESHOLDS

In evaluating the potential for a significant agricultural resources impacts, analysts should consult the Soil Survey, San Diego Area, Part III (USDA 1973) to determine the Storie Index rating and Capability Group of the soils on the project site. Other resources include the State of California Important Farmlands Map and Environmental Impact Reports prepared for subarea plans and community plan updates. Some of these documents contain maps identifying the various categories of farmland.

The determination of *substantial amount* cannot be based on any one numerical criterion (i.e., one acre), but rather on the economic viability of the area proposed to be converted. Another factor to be considered is the location of the area proposed for conversion. If the site itself is too small to be economically viable, would the proposed use affect the surrounding operations? For instance, the installation of a small housing complex on a formerly agricultural site may preclude or limit future pesticide spraying activities in an adjacent area with the potential to support food crops.

For purposes of defining significant agricultural resources and identifying impacts, it should be noted that the economic viability of a site is based on the characteristics that allow agricultural operations that can make a profit – not on a comparison of agricultural activities with other types of uses that may be more profitable.

B. AIR QUALITY and ODOR

Impact analysis for air quality should ensure that current air quality regulatory compliance attainment status is not adversely affected by stationary sources of emission, including CO hotspots, from new development. Table A-1 shows San Diego is designated “non-attainment” for ozone and particulate matter.³ The CEQA review should include measures to reduce project-related ozone and particulate matter emissions to ensure that new developments do not contribute to San Diego’s non-attainment status for these pollutants.

Table A-1 SAN DIEGO ATTAINMENTDESIGNATIONS		
Pollutant	Attainment Status	
	State	Federal
Carbon Monoxide	Attainment	Attainment
Lead	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Ozone	Non-Attainment	Attainment for 1-hr; not 8-hr. Maintenance ⁴
PM ₁₀	Non-Attainment	Unclassified
Sulfur Dioxide	Attainment	Attainment
Sulfates	Attainment	no federal standard
Hydrogen Sulfide	Unclassified	no federal standard
Visibility	Unclassified	no federal standard

INITIAL STUDY CHECKLIST QUESTIONS

The following are from the City’s Initial Study Checklist and provides guidance to determine potential significance to Air Quality:

Would the proposal result in:

1. A conflict with or obstruct implementation of the applicable air quality plan?
2. A violation of any air quality standard or contribute substantially to an existing or projected air quality violation?
3. Exposing sensitive receptors to substantial pollutant concentrations?
4. Creating objectionable odors affecting a substantial number of people? (See C-1)
5. Exceeding 100 pounds per day of Particulate Matter (PM)(dust)?
6. Substantial alteration of air movement in the area of the project?

SIGNIFICANCE THRESHOLDS

These air quality significance thresholds are based primarily on regulatory thresholds. However, use of regulatory standards as the sole threshold for significance [former CEQA section 15064(h)] was struck from CEQA pursuant to *Communities For A Better Environment v. California Resources Agency*, Case No. CO38844 (10/28/02). The former guideline specified that if a change in the environment is not a significant effect if the change complies with a regulatory standard found in a statute, ordinance, rule, or regulation. The court held that

⁴ Attainment for 1-hr. standard was promulgated by the US EPA on July 28, 2003; On 4/04 San Diego was classified as non-attainment for 8-hr. standard .

Guideline 15064(h) conflicted with CEQA's standard for determining whether to prepare an Environmental Impact Report (EIR). An agency must prepare an EIR whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact. The court reasoned that Guideline 15064(h) might be construed to allow an agency to avoid preparing an EIR by deeming an impact insignificant based upon compliance with an adopted regulatory standard, even if other substantial evidence supported a fair argument that a significant impact could occur.

Given the October 2002 ruling, reliance on the SDAPCD regulatory standards in Table 1 can no longer be used as the sole determinant of significance. The SDAPCD thresholds are provided in this document as a guideline to be considered on a case-by-case basis with other substantial evidence in light of the whole record to determine if the project may have a significant air quality impact. "Other substantial evidence" may include factors such as the proximity of sensitive receptors as discussed below.

The following Air Quality Thresholds are arranged in three parts beginning with the broadest, and narrowing to the most specific. Use of these should be applied as a screening tool to see where the project aligns along a sliding scale of potential significance. **If sensitive receptors are involved, the more restrictive of the guidelines should be applied.**

General Thresholds

A project may have a significant air quality environmental impact if it could:

- a. Conflict with or obstruct implementation of the applicable air quality plan
- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)
- d. Expose sensitive receptors⁵ to substantial pollutant concentrations including air toxics such as diesel particulates. ... As adopted by the South Coast Air Quality Management District (SCAQMD) in their CEQA Air Quality handbook⁶ (Chapter 4), a sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant than is the population at large. Sensitive receptors (and the facilities that house them) in proximity to localized CO sources, toxic air contaminants or odors are of particular concern. Examples include:
 - Long-Term Health Care Facilities
 - Rehabilitation Centers

⁵ Consider sensitive receptors in locations such as day care centers, schools, retirement homes, and hospitals or medical patients in residential homes close to major roadways or stationary sources, which could be impacted by air pollutants.

⁶ <http://www.aqmd.gov/ceqa/hdbk.html>

- Convalescent Centers
- Retirement Homes
- Residences – such as medical patients in homes
- Schools
- Playground
- Child Care Centers
- Athletic Facilities

Methodology: The public involvement process of CEQA should be used to help determine the conditions of the existing environment to make a reasonable determination if sensitive receptors are present. The environmental planner should make a field visit as appropriate as part of the environmental initial study which should include specific analysis for sensitive receptors. Using visual survey data and resources such as maps and signs or other identifying features, the planner should specifically look for the following locations/conditions:

Medical patients at:

- Adult/senior day care
- Senior citizen centers/facilities/retirement homes
- Hospitals/convalescent homes/long-term health care facilities
- Acute care/walk-in ambulatory care clinics
- Rehabilitation centers

Elderly persons/athletes/students/children at:

- Public parks/playgrounds
- Long-term care/assisted living facilities
- Churches
- Schools
- Child care centers/homes
- Athletic fields

Note: It is not always possible to know if a sensitive receptor exists adjacent to a project site. For example, a sensitive receptor may exist in a residential site such as an elderly patient living at home requiring in-home care, or a person with asthma, or a person with a compromised immune system. Applicants are not required to conduct door-to-door surveys to determine whether medical patients reside in private dwellings.

- e. Create objectionable odors affecting a substantial number of people; or
- f. Release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.⁷

Federally-supported transportation projects must demonstrate conformity with the State Implementation Plan (SIP) (“transportation conformity”) to ensure that new transportation

⁷ San Diego Municipal Code, Chapter 14, Article 2, Division 7, “Off-Site Development Impact Regulations” paragraph 142.0710, “Air Contaminant Regulations.”

projects would not jeopardize air quality in non-attainment areas. The SIP is the federally approved regional air quality strategy to attain and/or maintain health standards. The conformity requirement applies only to federal non-attainment and attainment/maintenance areas. Further discussion of transportation conformity is provided in item 4 below.

Projects that include stationary sources with impacts that may be significant under these general thresholds may also need an Air Quality Impact Assessment (AQIA) to be prepared in accordance with SDAPCD Rule 20.2.⁸

Note: The APCD applies the AQIA requirement for air quality permitting purposes to stationary sources of emissions. The SDAPCD did not establish these general air quality thresholds specifically for CEQA purposes or to assess mobile source emissions.

SDAPCD Thresholds

The SDAPCD provides criteria in Regulation II, Rule 20.2, Table 20-2-1, “AQIA Trigger Levels.” Apply these thresholds as a screening criteria for potential impact significance for stationary sources. If sensitive receptors are involved, or if the potential exists for a significantly cumulative air quality impact, apply the more restrictive Ambient Air Quality Standard (AAQS) threshold from Table A-3.

⁸ SDAPCD Regulation II, Rule 20.2 (d) (2). <http://www.sdapcd.co.san-diego.ca.us/rules/randr.htm>
For help, contact the SDAPCD at (858) 650-4700 or the California Air Resources Board (CARB) Compliance Assistance Program at 1-800-468-1786.

<p align="center">Table A-2 SAN DIEGO AIR POLLUTION CONTROL DISTRICT POLLUTANT THRESHOLDS FOR STATIONARY SOURCES</p>			
POLLUTANT	EMISSION RATE		
	<i>Lb/hr</i>	<i>lb/day</i>	<i>tons/yr</i>
Carbon Monoxide (CO)	100	550	100
Oxides of Nitrogen (NOx)	25	250	40
Particulate Matter (PM ₁₀)	--	100	15
Oxides of Sulfur (SOx) ^(b)	25	250	40
Lead and Lead Compounds ^(c)	--	3.2	0.6
Particulate Matter, 2.5 microns (PM _{2.5})	--	--	--
Volatile Organic Compounds (VOC) Reactive Organic Gases (ROG)	--	137 ^(e)	15

- d. Source: SDAPCD Rule 1501, 20.2(d)(2)
- e. San Diego Air Basin has been in attainment of SOx standard due to sulfur-free natural gas for electricity generation and lack of heavy industrial/manufacturing uses in the region.
- f. Lead emissions have steadily declined due to catalytic converters and increased use of lead-free gasoline. San Diego is no longer required to monitor for lead.
- g. VOC threshold based on SCAQMD levels per South Coast Air Quality Management District SDAPCD (9/01) and the Monterey Bay APCD (MBAPCD) which has similar federal and state attainment status as San Diego.

3. State and Federal Ambient Air Quality Standards (AAQS) Thresholds

Apply AAQS as the threshold where accepted methodology exists when the project involves a sensitive receptor or if the potential exists for a significant cumulative air quality impact.⁹ AAQS are established by the regulators to protect even the most sensitive individuals. The federal EPA standard is the National Ambient Air Quality Standards (NAAQS). The more restrictive state standard is the California Ambient Air Quality Standards (CAAQS) as defined by the CARB. Apply current CAAQS. Both sets of standards (as of March 2003) are shown in Table A-3 below.¹⁰

Note: applying the significance criteria in Table A-3 requires a more rigorous analysis to determine if the threshold would be exceeded. Computer-aided air quality modeling would likely be required to reach this determination. Modeling regional or local concentrations of criteria pollutants from mobile sources is practical only for CO; there are no state recommended models for assessing regional ozone concentrations or local PM₁₀ concentration from mobile sources.

⁹ <http://www.arb.ca.gov/research/aaqs/aaqs.htm>

⁹ <http://www.arb.ca.gov/research/aaqs/aaqs.htm>

Table A-3
NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS ^(a)

Pollutant	Averaging Time	California Standards		Federal Standards			
		Concentration	Method	Primary	Secondary	Method	
Ozone (O ₃)	1 hour	0.09 ppm (180 µg/m ³)	Ultraviolet photometry	0.12 ppm (235 µg/m ³)	Same as Primary	Ultraviolet Photometry	
	8 hour	--		0.08 ppm (157 µg/m ³)			
Respirable Particulate Matter (PM ₁₀)	24 hour	50µg/m ³ ^(b)	Gravimetric or Beta Attenuation	150µg/m ³	Same as Primary	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20µg/m ³		50µg/m ³			
Fine Particulate Matter (PM _{2.5})	24 hour	no separate state standard		65µg/m ³			
	Annual Arithmetic Mean	12µg/m ³	Gravimetric or Beta Attenuation	15µg/m ³			
Carbon Monoxide (CO)	8 hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Photometry	9.0 ppm (10 mg/m ³)	None	Non-Dispersive Infrared Photometry	
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)			
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	--	Gas Phase Chemi-Juninescence	0.053 ppm (100µg/m ³)	Same as Primary Standard	Gas Phase Chemi-Juninescence	
	1 hour	0.25 ppm (470µg/m ³)		--			
Lead	30 day average	1.5 µg/m ³	Atomic Absorption	--	--	High volume Sampler and Atomic Absorption	
	Calendar Quarter	--		1.5 µg/m ³	Same as Primary Standard		
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	--	Ultraviolet Fluorescence	0.030 ppm (80µg/m ³)	--	Spectrophotometry (Pararosaniline Method)	
	24 hour	0.04 ppm (105µg/m ³)		0.14 ppm (365µg/m ³)	--		
	3 hour	--		--	0.5 ppm (1300µg/m ³)		
	1 hour	0.25 ppm (655µg/m ³)		--	--		

Pollutant	Averaging Time	California Standards		Federal Standards		
		Concentration	Method	Primary	Secondary	Method
Visibility Reducing Particulates	8 hour	Extinction coefficient of 0.23 per kilometer—visibility of ten miles or more due to particles when relative humidity is less than 70%. Method: Beta Attenuation and Transmittance through Filter Tape.		No federal standards		
Sulfates	24 hour	25 µg/m ³	Iron Chromatography			
Hydrogen Sulfide (H₂S)	1 hour	0.03 ppm (42µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride	24 hour	0.01 ppm (26µg/m ³)	Gas Chromatography			

Table footnotes:

- ^a Data from April 2004 from CARB. Apply current AAQS: <http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>. See also SDAPCD Rule 20.1 (Table 20.1-7). Refer to the CARB web site for use of this table.
- ^b On June 20, 2002, the CARB approved staff's recommendation to revise the PM₁₀ annual average standard to 20 µg/m³ and to establish an annual average standard for PM_{2.5} of 12 µg/m³. On June 5, 2003, the Office of Administrative Law approved the amendments for the regulations for the State Ambient Air Quality Standards for particulate matter (PM) and sulfates. Information regarding these revisions can be found at: <http://www.arb.ca.gov/research/aaqs/std-rs/std-rs.htm>.

4. Transportation Conformity with State Implementation Plan (SIP)

Federally-supported transportation projects must demonstrate conformity with the State Implementation Plan SIP (“transportation conformity”) to ensure that new transportation projects would not jeopardize air quality in non-attainment areas. The San Diego Regional Association of Governments (SANDAG) demonstrates conformity for projects in the Regional Transportation Plan (RTP). Therefore, projects identified in the March 2003 SANDAG 2030¹¹ Regional Transportation Plan demonstrate transportation conformity. The San Diego Air Pollution Control District (SDAPCD) Regional Air Quality Strategy is the San Diego element of the SIP. Note that Transportation Control Measures are not a part of the RAQS. Note that federally-supported non-transportation projects must align with the general conformity requirement.

5. CO Hotspot Screening

The environmental review should also consider the localized health effect of carbon monoxide (CO). Although the San Diego Air Basin is currently an attainment area for CO, exhaust emissions can potentially cause a direct, localized “hotspot” impact at or near the proposed development. The primary source of this pollutant for the San Diego

¹¹ <http://www.sandag.org/>

Air Basin in 2001 was mobile sources (mostly on-road passenger vehicles).¹² CO is a product of incomplete combustion of fossil fuel; unlike ozone, CO is emitted directly out of a vehicle exhaust pipe at a congested major roadway intersection with sensitive receptors nearby, and where vehicles are either idling or moving at a stop-and-go pace.

CO Hotspot screening should follow current accepted protocol by the California Air Resources Board and/or the San Diego County Air Pollution control District. For example, the EMFAC¹³ computer model may be appropriate for estimating vehicle emissions. Effective June 30, 2003, new CO studies must use EMFAC (short for “EMission FACTor”) which is capable of estimating current and forecast emissions for vehicles for gas, diesel, or electric vehicles. The air quality analyst should select the most appropriate methodology in consultation with City of San Diego staff.

If quantitative evaluation is necessary, the computer model CALINE-4 (or equivalent) using the most recent CO emission factors should be applied.

Significance Determination Examples

The following are only examples of projects or actions that might trigger these levels. They are not to be applied as significance determination thresholds but are for screening purposes only.

1. 950 Single-Family Units/9,500 Average Daily Trips (ADT)

In areas of the City of San Diego where traffic flow is not below (worse than) Level of Service (LOS) C and where development is not located within 100 feet of a congested freeway, significant cumulative air quality impacts would result from the development of 950 or more single-family units. Using URBEMIS 2003¹⁴, the estimated 9,500 ADT generated by 950 units would result in the following emissions.

- NO_x – 153 pounds per day in summer; 234 pounds per day in winter; 180 pounds per day annual average;
- ROG – 126 pounds per day in summer; 141 pounds per day in winter; 141 pounds per day annual average;
- CO – 1,580 pounds per day in summer; 1,738 pounds per day in winter; 1,633 pounds per day annual average.

In this example, the significance thresholds would be exceeded for ROG and CO.

Multi-family, commercial, industrial, or institutional development resulting in 9,500 ADT or more could also result in impacts requiring migration.

2. 500 Single-Family Units/5,000 ADT

Additional CO consideration should be given for wood-burning fireplaces. If the 500 homes contain wood-burning fireplaces, and these fireplaces were used on an average of 50 days per year, and each fireplace burned one-eighth of a cord of firewood per year, 615 pounds of CO would be emitted each year or 12 pounds of CO per day in winter.

¹² Data from <http://www.arb.ca.gov/aqd/almanac/almanac01/almanac01.htm>

¹³ <http://www.dot.ca.gov/hg/env/air/ctemfac.htm>

¹⁴ Use current URBEMIS model

3. LOS Degradation for Prime Arterial and Major Roads

If a proposed development causes a six-lane prime arterial to deteriorate to LOS E or worse, the resulting longer queuing at the traffic signals could cause a localized significant air quality impact. A site specific CO hotspot analysis should be performed to determine if health standards are potentially violated and to identify any affected sensitive receptor.

If a proposed development causes a six-lane prime arterial to drop to LOS F, the resultant extended wait at the signalized intersections could cause a significant air quality impact. A site-specific CO hotspot screening and/or analysis should be performed to determine if health standards are potentially violated and to identify any affected sensitive receptor.

If a proposed development causes a four-lane major road to drop to LOS E or worse, the extended wait at the signalized intersection could cause a significant air quality impact. A site specific CO hotspot screening and/or analysis should be performed to determine if health standards are potentially violated and to identify any affected sensitive receptor.

If a proposed development is within 400 feet of a sensitive receptor and the LOS is worse than D, a site-specific CO hotspot analysis should be performed to determine if health standards are potentially exceeded and to determine the level of adverse effect on the receptors.

4. 100 Pounds per Day PM₁₀ (Airborne Dust) Criteria

San Diego is non-attainment for PM₁₀. While it is true that windborne particulate matter from other areas sometimes contributes to the non-attainment status, particular emphasis should be placed on identifying potential PM₁₀ emissions and specifying mitigation/control measures to be used during project construction activities. Construction grading and demolition dust accounts for 30% of all PM₁₀ emissions in the San Diego Air Basin. Road dust (both paved and unpaved roads) from sources such as vehicle tire wear on paved roads, accounts for 47% of all PM₁₀ emissions.

The South Coast Air Quality Management District's *CEQA Air Quality Handbook* (1993) estimate of PM₁₀ emissions from site grading is 26.4 pounds per graded acre; roughly 100 pounds of PM₁₀ is generated by grading 4.0 acres per day. The estimate is for use as a screening tool to help determine if the 100 pounds of dust would be exceeded.

It should be noted that daily watering of the site prior to/during grading reduces the dust emissions by 50%; a second daily watering reduces the dust emissions by 75%. Another acceptable control has been to phase the grading such that the area to be graded each day is kept below the 100 pounds per day threshold.

Alternatively, a project would not result in a significant impact if specified dust controls are included on the project plans such that visible dust plumes would be retained within the property lines. Dust controls would include not only watering, but other measures such as the preventing of trackout, paving of unpaved roads, covering or treating stockpiles, etc., with the extent of controls varying with the size of the project.

Another major source of airborne dust is caused by vehicle travel on paved roads; it is estimated that one pound of airborne dust is produced for each 2,100 of vehicle miles traveled. At an average trip length of nine miles per ADT and ten ADTs per single family home, a new development of 2,300 units would cause 100 pounds of airborne dust; likewise any new development causing or attracting 23K ADTs would result in 100 pounds of airborne dust.

Dust is also associated with demolition of existing structures. Evaluation of projects should consider potential for dust generation from demolition. Asbestos containing materials may be present in the structure to be demolished. Notice is required to be provided by the project applicant to the SDAPCD (APCD) prior to demolition. The website and address for San Diego APCD are as follows:

<http://www.sdapcd.co.san-diego.ca.us/permits/asbestos.html>

San Diego APCD
Compliance Div., Asbestos Section
9150 Chesapeake Drive
San Diego, CA 92123 (858) 650-4554

5. Stationary Sources

Consider potential impacts from existing stationary sources. For new stationary (“non-vehicular”) sources, contact the SDAPCD.¹⁵ Instruct the applicant to complete DSD form DS-3163, “Hazardous Materials Questionnaire.” See DSD Info Bulletin 116¹⁶ for more information. This bulletin has a sign-off block for SDAPCD to review potential air contaminants from non-vehicular sources. Remember that a permitted source does not necessarily mean that the source is not “significant” under CEQA.¹⁷ A project with a permitted stationary source may make a considerable contribution to cumulative traffic impacts or may have potential for localized health/air quality impacts.

Air Quality Cumulative Impacts Data Sources

The following data sources should be reviewed to help make a determination of potential significance and/or for cumulative impacts assessment.

1. Site-specific emission data from the SDAPCD is available on-line at:
<http://www.sdapcd.co.san-diego.ca.us/gtoxics/Project1/SourceEmissions.htm>.
This database includes a cancer risk estimator index. A score between 1 and 100 generally means that the facility will be required to conduct a Health Risk Assessment.

¹⁵ If a project includes a new or modified stationary air source, refer the applicant to the SDAPCD for permitting help: (858) 650-4700 or at <http://www.sdapcd.co.san-diego.ca.us/>.

¹⁶ <http://www.sandiego.gov/development-services/industry/infobulletins.shtml>

¹⁷ Use of regulatory standards as a threshold for significance [former CEQA section 1506(h)] was struck from CEQA pursuant to *Communities For A Better Environment v. California Resources Agency*, Case No. CO38844 (10/28/02).

2. The CARB provides an on-line air quality forecaster at:
<http://www.arb.ca.gov/app/emsinv/fcemssumcat.html>
The web-based tool will provide an estimate of emissions in the following categories:
total organic gases, reactive organic gases, ROG, CO, NOX2, SOX2, PM10, and PM25.
3. To evaluate emissions from stationary sources in an area (for example, by Zip Code), or to support a Hotspot screening, the California Air Resources Board provides an on-line facility query tool:
<http://www.arb.ca.gov/app/emsinv/facinfo/facinfo.php>
4. Hotspot analysis -The SDAPCD has also evaluated potential Hotspot issues for San Diego County in its report, “2001 Air Toxics “Hot Spots” Program Report for San Diego County”(October 2002):
http://www.sdapcd.co.san.diego.ca.us/gtoxics/toxics_reports.html
5. The U.S. Environmental Protection Agency (EPA) Envirofacts on-line database provides environmental information from a variety of EPA databases:
http://www.epa.gov/enviro/index_java.html

Note: Cumulative regional air quality impacts cannot be mitigated at the project level.

ODOR

Projects that involve offensive odors may be a nuisance to neighboring uses, including businesses, residences, sensitive receptors, and public areas. For example, heavy industrial projects and livestock farming operations with the potential to expose sensitive receptors to objectionable odors could be deemed to have a significant impact. Significant odor impacts on residential areas and sensitive receptors warrant close scrutiny. Considerable attention should also be given to other land uses where people congregate such as recreational areas, work sites, and commercial areas. Analysis of potential odor impacts should be conducted for sources of odorous emissions, and receptors located near odorous sources.

INITIAL STUDY CHECKLIST QUESTION

The following are from the City's Initial Study Checklist and provides guidance to determine potential significance from Odor:

Would the proposal result in:

1. Creating objectionable odors affecting a substantial number of people?

SIGNIFICANCE THRESHOLDS

Determining the significance of potential odor impacts should be based on what is known about the quantity of the odor compound(s) that would result from the project's proposed use(s), the types of neighboring uses potentially affected, the distance(s) between the project's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentration(s) at the receptors. A more detailed odor analysis may be required to fully evaluate and determine significance of the potential impacts if the proposed project would result in objectionable odors to nearby sensitive receptors.

For a project proposing placement of sensitive receptors near an existing odor source, a significant odor impact will be identified if the project site is closer to the odor source than any existing sensitive receptor where there has been more than one confirmed or three confirmed complaints per year (averaged over a three week period) about the odor source.

For projects proposing placement of sensitive receptors near a source of odors where there is currently no nearby existing receptors, the determination of significance should be based on the distance and frequency at which odor complaints from the public have occurred in the vicinity of a similar odor source at another location.

The San Diego Municipal Code also addresses odor impacts at Chapter 14, Article 2, Division 7 paragraph 142.0710, "Air Contaminant Regulations" which states:

Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

If a proposed project is determined to result in significant odor problems, mitigation measures should be identified. For some projects such as restaurants, add-on controls or process changes, such as carbon absorption, or other filtration may reduce emissions to below a level of significance.

For City of San Diego Metropolitan Wastewater Department (MWWD) projects, the “Odor Control Design Guidelines” are applied to ensure sewer odor impacts are minimized.¹⁸ The following table may also be used as a guide (not necessarily as CEQA-significant threshold levels) to estimate concentration at which a chemical odor may become recognizable. Note that different organizations have different threshold levels. The environmental analyst should determine which standard to apply based on project-specific conditions such as proximity to sensitive receptors. Odor impacts may have a significant impact unless mitigated. If values are not listed for a particular chemical, lookup tables are available at various websites through most Material Safety Data Sheet (MSDS) applications, or the EPA Envirofacts database:

<http://www.epa.gov/enviro/html/emci/chemref/index.html>

Table A-4
ODOR GUIDELINES ^(a)

Pollutant	Odor Threshold (ppm)			Threshold Limit Value (TLV) (ppm)
	<i>CHRIS</i> ^(b)	<i>AAR</i> ^(c)	<i>AIHA</i> ^(d)	
Acetaldehyde	0.21	0.01-0.031	0.0028-1000	25
Acetone	100	0.66-320	0.037-0.15	750
Ammonia (anhydrous)	47	0.037-20	0.043-53	25
Benzene	4.7	0.16-320	0.78-160	10
Carbon monoxide	odorless	Odorless	Odorless	25
Carbon tetrachloride	>10	15-50	1.6-706	5
Chlorine	3.5	0.02-3.5	0.021-3.4	0.5
Cumene	1.2	--	0.0051-1.3	50
Cyclohexane	--	0.41	0.52-784	300
Dicyclopentadiene	0.003	0.002	0.003-0.011	5
Ethyl benzene	140	0.25-2.3	0.092-0.60	100
n-Hexane	--	--	65-248	50
Hydrogen sulfide	0.0047	0.13	0.001 – 1.3*	10

¹⁸ City of San Diego MMWD Program Guidelines for Design Consultants. Appendix D, Chapter D30, “Odor Control Design Guidelines.” December 1996

Pollutant	Odor Threshold (ppm)			Threshold Limit Value (TLV) (ppm)
	<i>CHRIS</i> ^(b)	<i>AAR</i> ^(c)	<i>AIHA</i> ^(d)	
Methyl ethyl ketone	10	11-27	0.25-85	200
Naphthalene	--	0.3-0.9	0.0095-0.64	10
Phenol	0.05	--	0.0045-1	5
Phosgene	0.5	0.125-1	0.12-5.7	0.1
Phospine	0.14	0.02	0.01-5	0.3
Styrene monomer	0.148	0.02-0.47	0.0047-61	50
Sulfur dioxide	3	3	0.33-5	2
Toluene	0.17	0.17-40	0.021-69	50
Vinyl chloride	260	260-25,000	--	5
o,m,p-Xylene	0.05	0.2-4	0.081-5.4	100

Table notes:

- a “**Working with Toxic and Odor Thresholds**.” CAMEO Today newsletter, March/April 1997 issue ; (revised August 2001). National Oceanic and Atmospheric Administration (NOAA). Computer-Aided Management of Emergency Operations (CAMEO®).
http://response.restoration.noaa.gov/cameo/dr_aloha/odor/odor.html
- b **Chemical Hazards Response Information System (CHRIS) Manual**. U.S. Coast Guard.
<http://www.chrismanual.com/>
- c Bureau of Explosives, American Association of Railroads (**AAR**). 1996. Emergency Action Guides. Washington, DC: <http://www.aar.org>
- d. American Industrial Hygiene Association (AIHA). 1989. Odor Thresholds for Chemicals with Established Occupational Health Standards. Akron, OH: AIHA. (This document can be ordered from the **AIHA website**, www.aiha.org).
- * According to the MWWO Odor Control Design Guidelines, odor complaints are not typically generated if ambient concentrations of odorous compounds are less than 5 odor units (five times the odor recognition threshold). Applying this multiplier to the AIHA odor recognition threshold indicates that complaints would not be expected for hydrogen sulfide concentrations that are less than 0.0005 ppm.

C. BIOLOGICAL RESOURCES

Sensitive biological resources are defined by the City of San Diego Municipal Code as:

- Lands that have been included in the Multi-Habitat Planning Area (MHPA) as identified in the City of San Diego Multiple Species Conservation Program (MSCP) Subarea Plan (City of San Diego, 1997);
- Wetlands (as defined by the Municipal Code, Section 113.0103);
- Lands outside the MHPA that contain Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines (July 2002 or current edition) of the Land Development manual;
- Lands supporting species or subspecies listed as rare, endangered, or threatened;
- Lands containing habitats with narrow endemic species as listed in the Biology Guidelines of the Land Development manual; and
- Lands containing habitats of covered species as listed in the Biology Guidelines of the Land Development manual.

For projects within the City of San Diego or carried out by the City of San Diego which may affect sensitive biological resources, potential impacts to such sensitive biological resources must be assessed. The following criteria and information are provided for guidance during this process.

INITIAL STUDY CHECKLIST QUESTIONS

The following are from the City's Initial Study Checklist and provides guidance to determine potential significance to Biological Resources:

Would the proposal result in:

1. A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS)?
2. A substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS?
3. A substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?
4. Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?

5. A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?
6. Introducing land use within an area adjacent to the MHPA that would result in adverse edge effects?
7. A conflict with any local policies or ordinances protecting biological resources?
8. An introduction of invasive species of plants into a natural open space area?

SIGNIFICANCE THRESHOLDS

Impacts to biological resources are assessed by City staff through the CEQA review process, and through review of the project's consistency with the Environmentally Sensitive Lands (ESL) regulations, the Biology Guidelines (July 2002) and with the City's MSCP Subarea Plan. Before a determination of the significance of an impact can be made, the presence and nature of the biological resources must be established.

The following two steps summarize the procedure for collecting the necessary information.

STEP 1:

Determine the extent of biological resources and values present on the site. The analyst needs to visit the site and review existing biological information (e.g. MSCP vegetation maps). If there is any evidence that the site supports or recently supported biological resources, significant biological resources (see clarification in Step 2), a survey or letter report is necessary.

A factor in making this determination is whether or not the site has been illegally graded or grubbed. In some cases it is appropriate to consider the biological values on the site before a disturbance such as grading or fire. In general, if the site has been legally graded or grubbed and/or is characterized by ruderal species, is not included in the City's MHPA, and does not support wetlands or Tier I, II or III habitat, it probably does not support significant biological resources.

Note: The presence of trash and debris on a site does not indicate a lack of biological habitat. In addition, lack of vegetation due to fire, clearing of vegetation for brush management (Zone 2 is impact neutral), unauthorized off-road vehicle use or other uses also does not preclude the presence of potential habitat.

An affirmative answer to any of the following questions indicates that significant biological resources MAY be present:

- a. The site has been identified as part of the MHPA by the City's MSCP Subarea Plan.
- b. The site supports or could support (e.g. in different seasons/rainfall conditions, etc.) Tier I, II, or IIIA & B vegetation communities (such as grassland, chaparral, coastal sage scrub, etc.). The CEQA determination of significant impacts may be based on what was on the site (e.g. if illegal grading or vegetation removal occurred, etc.), as appropriate.

- c. The site contains, or comes within 100 feet of a natural or-manufactured drainage (determine whether it is vegetated with wetland vegetation). The site occurs within the 100-year flood plain established by the Federal Emergency Management Agency (FEMA) or the Flood Plain Fringe (FPF)/ Flood Way (FW) zones.
- d. The site does not support a vegetation community identified in Table 2 or 3 (Tier I, II, IIIA or IIIB) of the Biology Guidelines (July 2002); however, wildlife species listed as threatened or endangered or other protected species may use the site (e.g. California least terns on dredge spoil, wildlife using agricultural land as a wildlife corridor, etc.).

STEP 2:

Based on Step 1, if significant biological resources are present, then a survey to determine the nature and extent of the biological resources on the site is warranted (See Guidelines for Conducting Biology Surveys, revised 2002). The survey should identify which biological resources are present on the site and its immediately surrounding area, and the number and extent of each type. As appropriate and when relevant to the biological resources found on site, the survey should also discuss the nature and quality of the biological resources in the immediate vicinity of the project site.

The significance and/or sensitivity of the resource can be determined at this stage, however, a resource may be more vulnerable to some kinds of development than to others. Sensitivity and/or significance of impacts is, therefore, more appropriately considered in the context of the proposed project, as discussed below.

Biology Significance Determination

1. Direct Impacts

The direct, indirect and cumulative impacts of a project must be analyzed for significance. The first step in making the determination is to identify the nature of the impact, and the extent, and degree of direct impacts to biological resources. A direct impact is a physical change in the environment which is caused by and immediately related to the project. An example of a direct physical change in the environment is the removal of vegetation due to brushing, grubbing, grading, trenching, and excavating.

In order to determine the extent of impacts, the acreage of each habitat type to be lost should be quantified. If an upland, categorize the land into one of the four Tier categories (I -IV), which are listed on Table 3 of the Biology Guidelines (July 2002). If a natural wetland, categorize as indicated on Table 2 of the Biology Guidelines (July 2002). In addition, the boundaries of the MHPA should be determined and any proposed encroachment should be quantified. Where possible, the extent or number of individuals of sensitive, threatened, rare, or endangered species to be taken or harassed should also be quantified. In order to determine the degree of the impact, fragmentation of habitat, loss of foraging area for sensitive species, and other factors should be considered.

The City's permit to 'take' covered species under the MSCP is based on the concept that 90% of lands within the MHPA will be preserved. Any encroachment into the MHPA (in excess of the allowable encroachment by a project) would be considered significant and require a boundary adjustment which would include a habitat equivalency assessment to ensure that what will be added to the MHPA is at least equivalent to what would be removed.

In addition, lands containing Tier I, II, IIIa and IIIb [(see Table 3 of City's Biology Guidelines (July 2002))] and all wetlands [see Table 2 of City's Biology Guidelines (July 2002)] are considered sensitive and declining habitats. As such, impacts to these resources may be considered significant. Lands designated as Tier IV are not considered to have significant habitat value and impacts would not be considered significant.

Impacts to individual sensitive species, outside of any impacts to habitat, may also be considered significant based upon the rarity and extent of impacts. Impacts to state or federally listed species and all narrow endemics [see the City's Biology Guidelines (July 2002)] should be considered significant. Certain species covered by the MSCP [see page 26 of the Biology Guidelines (July 2002)] and other species not covered by the MSCP, may be considered significant on a case-by-case basis taking into consideration all pertinent information regarding distribution, rarity, and the level of habitat conservation afforded by the MSCP.

Notes:

- (a) Total upland impacts (Tiers I- IIIB) less than 0.1 acre are not considered significant and do not require mitigation. **See Section 3 (Cumulative Impacts) relative to native grasslands.**
- (b) Impacts to non-native grasslands totaling less than 1.0 acres which are completely surrounded by existing urban developments are not considered significant and do not require mitigation. Examples may include urban infill lots.
- (c) Total wetland impacts less than 0.01 acre are not considered significant and do not require mitigation. **THIS DOES NOT APPLY TO VERNAL POOLS** or wetlands within the Coastal Zone.
- (d) Brush management Zone 2 thinning activities, while having the potential to adversely affect biological resources, are not considered potentially significant inside the MHPA or, to the extent that non-covered species are not impacted, outside the MHPA, because of the implementation of the MSCP. Brush management Zone 2 thinning outside the MHPA which affects non-covered species is potentially significant. Brush management not conducted in accordance with brush management regulations, regardless of where it is located, is also potentially significant.
- (d) Mitigation is not required for impacts to non-native grassland habitat when impacted for the purpose of wetland or other native habitat creation.
- (e) Habitat mitigation is not required for impacts to manufactured slopes or areas that have been planted with native species for the purpose of erosion control. For example, in order

to qualify for this exception, substantiation of previous permits and mitigation must be provided.

Noise mitigation, however may be required for significant noise impacts to certain avian species during their breeding season depending upon the location of the slope (such as adjacent to an MHPA) and what birds may be present in the area such as the California gnatcatcher, least Bell's vireo, southern willow flycatcher, least tern, cactus wren, tricolored blackbird, or western snowy plover. If these avian species (except for the California gnatcatcher) are present, then mitigation will be required if construction or operational noise levels would exceed 60 dB(A), or the existing ambient noise level if already above 60dB(A) during the breeding season. For California gnatcatcher habitat within the MHPA and occupied, construction or operational noise levels exceeding 60 dB(A) (or exceeding the existing ambient noise level if already above 60 dB(A)) during the breeding season is considered significant. There are no restrictions for the gnatcatcher **outside** the MHPA anytime of the year.

In addition, inside the MHPA, impact avoidance areas are required for Cooper's hawk, northern harrier, golden eagle, burrowing owl, and southwestern pond turtle. See Biology Guidelines, Section II, A. 2 & 4. and Section 9.12 of the Implementing Agreement.

- (f) Areas subject to temporary removal/control (i.e. less than 3 months) of non-native plants by itself are not considered to constitute a significant habitat impact for which compensatory habitat acquisition, preservation, or creation for the area impacted would be required. Mitigation for indirect impacts such as erosion control or off-site infestation by non-native species may be needed.

2. Indirect Impacts

CEQA Guidelines §15064(d) provides the following guidance regarding identification of direct versus indirect impacts:

In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes in the environment which may be caused by the project.

- a. An indirect impact is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct impact in turn causes another physical change in the environment, then the secondary changes is an indirect impact. For example, the dust from heavy equipment that would result from grading for a sewage treatment plant could settle on nearby vegetation and interfere with photosynthetic processes; and the construction equipment noise levels could interrupt reproductive behavior within adjacent sensitive avian breeding habitats during the breeding season.
- b. An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable.

Depending on the circumstances, indirect impacts of a project may be as significant as the direct impacts of the project. In general, however, indirect impacts are easier to mitigate than direct ones. Some impacts may be considered indirect impacts in some circumstances and direct impacts under other circumstances. Indirect impacts include but are not limited to, the following impacts:

- a. The introduction of urban meso-predators into a biological system;
- b. The introduction of urban runoff into a biological system;
- c. The introduction of invasive exotic plant species into a biological system;
- d. Noise and lighting impacts (note: consider both construction/demolition and operational phases of the project); and
- e. Alteration of a dynamic portion of a system, such as stream flow characteristics or fire cycles; and
- f. loss of a wetland buffer that includes no environmentally sensitive lands.

3. Cumulative Impacts

The MSCP was designed to compensate for the regional loss of biological resources throughout the region. Projects that conform with the MSCP as specified by the Subarea Plan, and implementing ordinances, (i.e. July 2002 Biology Guidelines and ESL Regulations) are not expected to result in a significant cumulative impact for those biological resources adequately covered by the MSCP. These resources include the vegetation communities identified as Tier I through IV (see City's July 2002 Biology Guidelines, and the MSCP covered species list (see Appendix A of the City of San Diego's MSCP Subarea Plan).

All direct impacts to vernal pools are significant and cumulatively significant. Impacts to vernal pools may be mitigated in accordance with the criteria in the Biology Guidelines.

Direct impacts to perennial native grasslands that are greater than 0.1 acre are significant and cumulatively significant. Direct impacts to this habitat type are mitigated via Tier I per Biology Guidelines. Cumulative impacts may be mitigated only via creation at a 1:1 ratio or greater with the feasibility of creation to be evaluated on a case-by-case basis.

Impacts to species covered by the MSCP (see Appendix A of MSCP Subarea Plan) would not generally be considered cumulatively significant, provided the project is in full compliance with the MSCP and its implementing regulations. Impacts to state- or federally-listed species not covered by the MSCP may be considered cumulatively significant. Each situation will be evaluated on a case-by-case basis.

It is expected that many other sensitive species not analyzed for coverage under the MSCP will be adequately conserved through the MSCP's habitat-based mitigation plan. A rare circumstance may arise, however, where impacts to a particular species may still result in a cumulatively significant impact. The project-level biological survey report would identify those species and describe why a cumulative impact still exists in light of the habitat level of protection provided by the MSCP. Depending on the size of the impact, the salt marsh daisy (*Lasthenia glabrata* ssp. *coulteri*) found in salt pannes) and the little mouse tail (*Myosurus*

minus) found in vernal pools) would be examples of non-covered species that might be considered rare enough to conclude cumulatively significant impacts.

WEB SITES FOR REFERENCED DOCUMENTS

Biology Survey Guidelines:

<http://www.sandiego.gov/mscp/pdf/biosurvey.pdf>

Biology Guidelines:

<http://www.sandiego.gov/mscp/pdf/biolog.pdf>

MSCP Subarea Plan:

<http://www.sandiego.gov/mscp/pdf/subarea.pdf>

Environmentally Sensitive Lands Regulations:

<http://clerkdoc.sannet.gov/legtrain/mc/MuniCode Chapter14/Ch14Art03Division01>

D. GEOLOGIC CONDITIONS

Geologic conditions exist within certain areas of the City of San Diego which have the potential to pose serious problems when land is developed. Unstable slopes, slide prone soils, and faults occur in many parts of the City. Seismically liquefiable areas exist near the bays and rivers. The Geologic Hazard maps which are part of the City of San Diego Seismic Safety Study indicate where adverse geological conditions exist which will require some level of evaluation by a geologist, an engineer, or both.

Table F-1 describes which type of geologic report is required for specific zones identified on the Seismic Safety Study. Depending on the nature of the proposed project, the requirements can be waived in portions of zone 53 where the topography is flat, or where an evaluation by a City geologist determines that the geologic impact to the project is negligible. * In areas considered at high risk for liquefaction, the report can be deferred to the Building Development Review (BDR) Division until the Building Permit stage if no environmentally sensitive resources are likely to be impacted. Studies for potentially active faults may also be deferred to BDR based on an evaluation by a City staff geologist. Soil investigations may also be deferred if no sensitive environmental resources would be affected by the findings of the report.

*** Note: All project grading components, including offsite improvements such as roads, must be included in the analysis. Therefore, for those project components where BDR would not typically review, approve and require compliance with geotechnical report recommendations (i.e., areas outside the building pad), the analysis must be done during the discretionary stage of project review.**

**Table F-1
REQUIRED GEOTECHNICAL STUDY**

Hazard Category	Group I	Group II	Group III	Group IV	Group V	Group VI
11, 13, 21, 41	GI	GI	GI	GI	GI	GI
12, 22-27, 42-47	GR	GI	GR	GI	GR	GR*
31, 32, 48, 53 & 54 (if hillside)	GR*	SR & GR*	GR*	GR*	--	--
51, 52, 55, 53 & 54 (if flat terrain)	GR*	SR*	--	--	--	--

Table F-1 notes:

GI = Geotechnical Investigation
GR = Geotechnical Reconnaissance
SR = Soil Report

GEOLOGIC HAZARD CATEGORIES (from The City of San Diego's *Seismic Safety Study, 1995 Edition*)

Fault Zones:

11 active, Alquist-Priolo Earthquake Fault Zone

- 12 potentially active: inactive, presumed inactive or activity unknown
- 13 downtown special fault zone

Landslides:

- 21 confirmed, known, or highly suspected
- 22 possible or conjectured

Slide-Prone Formations:

- 23 Friars: neutral or favorable geologic structure
- 24 Friars: unfavorable geologic structure
- 25 Ardath: neutral or favorable geologic structure
- 26 Ardath: unfavorable geologic structure
- 27 Otay, Sweetwater and others

Liquefaction:

- 31 high potential – shallow groundwater, major drainages, hydraulic fills
- 32 low potential – fluctuating groundwater, minor drainages

Coastal Bluffs

- 41 generally unstable: num. landslides, high steep bluffs, severe erosion, unfavorable geol. structure
- 42 generally unstable: unfavorable bedding planes, high erosion
- 43 generally unstable: unfavorable jointing, local high erosion
- 44 moderately stable: mostly stable formations, local high erosion
- 45 moderately stable: some minor landslides, minor erosion
- 46 moderately stable: some unfavorable geologic structure, minor or no erosion
- 47 generally stable: favorable geologic structure, minor or no erosion, no landslides
- 48 generally stable: broad beach areas, developed harbor

Other Terrain

- 51 level mesas – underlain by terrace deposits and bedrock: nominal risk
- 52 other level areas, gently sloping to steep terrain, favorable geologic structure, low risk
- 53 level or sloping terrain, unfavorable geologic structure, low to moderate risk
- 54 steeply sloping terrain, unfavorable or fault controlled geologic structure, moderate risk
- 55 modified terrain (graded sites): nominal risk

- Reports in these categories will not be routed to LDR Geology staff for review; the report will be accepted "as is" unless the reviewing sections have questions. A condition will be included that final geological review will occur in BDR prior to issuance of a building permit.

Building Type/ Land Use Group	
Group I:	Tentative and Vesting Tentative Maps; Subdivision Maps, Lot Splits
Group II:	Grading Permits
Group III:	Neighborhood Development Permit (NDP), Site Development Permits (SDP) for Environmentally Sensitive Lands, or Coastal Development Permits (CDP)
Group IV:	Planned Development Permit (PDP)
Group V:	Conditional Use Permit (CUP)
Group VI:	Map Waivers

"Geologic Report" refers to the Geologic Investigation or Geologic Reconnaissance as designated by Table F 1 and defined in the City's "Technical Guidelines for Geotechnical Reports. (October 1988)" Please refer to these guidelines for the requirements of a Geologic Report

INITIAL STUDY CHECKLIST QUESTIONS

The following Initial Study Checklist questions are from the City's Initial Study Checklist, and provide guidance to determine potential significance for geologic conditions?

Would the proposal:

1. Expose people or structures to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?
2. Result in a substantial increase in wind or water erosion of soils, either on or off the site?
3. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

SIGNIFICANCE THRESHOLDS

EAS staff should work closely with LDR-Geology to determine if a project would have significant impacts and if mitigation is necessary. This should be determined on a case-by-case basis. Typically, standard construction practices recommended in a geologic report would not be mitigation.

E. GROWTH INDUCEMENT

Growth inducement is not clearly defined in CEQA as are other issues. It is usually associated with those projects that foster economic or population growth, or the construction of additional housing, either directly or indirectly which results in the construction of major and new infrastructure facilities. Also a change in land use policy, or projects that provide economic stimulus such as industrial or commercial uses may induce growth as discussed below.

Accelerated growth may further strain existing community facilities or encourage activities that could significantly affect the surrounding environment. The impacts of growth inducement are associated with other issues such as the effects on biological or historical resources, traffic, air quality, public services, etc.

INITIAL STUDY CHECKLIST QUESTIONS

Would the proposal:

1. Induce substantial population growth in an area, (for example, by proposing new homes and commercial or industrial businesses beyond the land use density/intensity envisioned in the community plan)?
2. Substantially alter the planned location, distribution, density, or growth rate of the population of an area?
3. Include extensions of roads or other infrastructure not assumed in the community plan or adopted Capital Improvements Project list, when such infrastructure exceeds the needs of the project and could accommodate future developments?

SIGNIFICANCE THRESHOLDS

A two step analysis needs to be done. The first step is to determine if the project is growth inducing. This includes projects that foster economic growth or population, or construct a new water or sewer line where none previously existed. If this is the case, then this must be analyzed (Step two) in the appropriate issue area.

If the project requires an EIR, Growth Inducement is a mandatory section. The EIR must analyze the consequences of growth; for instance, existing infrastructure may not be able to accommodate a major subdivision, industrial complex, or commercial center and the project may require new facilities that in turn result in impacts. According to Section 15126.2 (d) of the CEQA Guidelines, "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." In general, the analysis must avoid speculation and focus on probable growth patterns or projections. Conclusions must also be presented that determines whether this impact is significant and/or unavoidable, and provide for mitigation or avoidance.

F. HEALTH AND SAFETY

The following issue areas are discussed in these significance criteria guidelines:

- Hazardous materials/public safety
- Human health
- Brush management

1. Hazardous Materials/Public Safety

As residential redevelopment and new residential construction occurs in or near areas historically used for industry, agriculture, commerce, solid waste (e.g. landfills, former landfill sites, or fuel storage) contaminated soils and groundwater can be found. As part of the environmental review process, steps must be taken to disclose and address the safe removal, disposal and/or remediation of hazardous materials. There are federal, state and local government requirements that must be incorporated into projects which address these issues. Affected facilities would range in scope from establishments specifically designed to handle hazardous/toxic materials (e.g., waste treatment facilities) to underground tanks associated with automotive service stations. In addition there are other public safety issues associated with development proposals in close proximity to airports, in flood-prone areas, and in areas susceptible to brush fires.

For non-residential projects, instruct the applicant to complete Development Services Department (DSD) form DS-3163, "Hazardous Materials Questionnaire." See DSD Info **Bulletin 116** for more information.

2. Human Health

Human health issues address health hazards (both known and perceived), such as exposure to disease-carrying vectors; contamination due to sewage spills; proximity to electromagnetic fields (EMF) associated with electric transmission lines and communications facilities; and uses in proximity to former or active underground storage tank sites; fuel-storage tank farms, sewage treatment plants, or areas where toxic chemicals may be stored.

A. Vector Control

The County of San Diego Department of Environmental Health (DEH) regulates vector control. A vector is any insect or other arthropod, rodent, or other animal of public health significance capable of causing human discomfort and injury, or capable of harboring or transmitting the causative agents of human disease. Projects constructing ponds, or other potential vector habitat should consult with DEH to determine mitigation measures to minimize vector impacts.

B. Electromagnetic Fields (EMF)

Studies of the potential for adverse public health effects of EMF are inconclusive. A statement or conclusion of impacts would be speculative. In accordance with CEQA Section 15145, the known information about EMF is summarized and no conclusion of significance is reached.

The California Department of Health Services (DHS), California Electric and Magnetic Fields Program¹⁹ provides information regarding known possible health effects from EMF created by the use of electricity. DHS references the National EMF Research and Public Information Dissemination (RAPID) Program, established by Congress as part of the Energy Policy Act of 1992, which has published its findings concluding evidence of the risk of cancer from EMF around power lines is weak. The report recognizes that EMF exposure "cannot be recognized as entirely safe" but "believes that the probability that EMF exposure is truly a health hazard is currently small" with "marginal scientific support that exposure to this agent is causing any degree of harm." The report concludes that efforts to reduce exposure to EMF should continue.

C. EMF and Wireless Telephone Facilities

On February 8, 1996, the Telecommunications Act of 1996 was signed into law. Section 740 of the Act states as follows: "No state or local government or instrumentality thereof may regulate the placement, construction, and modification of wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the commission's regulations concerning such emissions."

Communications antennas emit varying levels of radio frequency (RF) energy. Below a certain threshold of RF power there is virtually no danger at any distance or direction from the transmitting antenna. Above that threshold, the installation is generally designed to ensure that the areas in which people are likely to be found are exposed to a minimum and safe level of RF energy. The American National Standards Institute (ANSI), and the Institute of Electrical and Electronic Engineers (IEEE) have established the standard for safe exposure levels of RF energy for wireless facilities. RF emission levels are usually expressed and measured as a "power density" or flux which is described in terms of power per unit area. This is the power which flows outward from the transmitter and passes through a given area. The intensity of radiation diminishes exponentially at greater distances from the source, and the exposure, even within the "beam," at sufficient distance presents no exposure danger. The accepted standard for safe exposure to RF energy from the proposed type of facility is 580 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The exposure level associated with most cellular facilities is about 0.01% of the accepted standard, or $5.8 \mu\text{W}/\text{cm}^2$ at 50 feet, which is well below the established safety level. If antennas would be placed in conjunction with other existing antennae at the same location, FCC rules require the total exposure from all facilities to fall within the guideline limits.

D. Schools

CEQA provides guidance on health and safety impacts for school facilities at 21151.2, 21151.4, 21151.8 and 15186. State-funded schools must also address school siting criteria of Title 5 of the California Code of Regulations²⁰, Division 1, Ch 13, Sub Chapter 1, "School Facilities Construction."

¹⁹ <http://www.dhs.cahwnet.gov/ps/deodc/ehib/emf/>

²⁰ <http://www.calregs.com>

The citing of facilities which may emit hazardous or acutely hazardous materials or may handle acutely hazardous materials with a quarter of a mile of a school may result in a significant impact.

CEQA Section 21151.4 states:

No environmental impact report or negative declaration shall be approved for any project involving the construction or alteration of a facility within 1/4 of a mile of a school which might reasonably be anticipated to emit hazardous or acutely hazardous air emission, or which would handle acutely hazardous material or a mixture containing acutely hazardous material in a quantity equal to or greater than the quantity specified in subdivision (a) of Section 25536 of the Health and Safety Code, which may pose a health or safety hazard to persons who would attend or would be employed at the school, unless both of the following occur:

- (a) The lead agency preparing the environmental impact report or negative declaration has consulted with the school district having jurisdiction regarding the potential impact of the project on the school.
- (b) The school district has been given written notification of the project not less than 30 days prior to the proposed approval of the environmental impact report or negative declaration.

3. Brush Management

A specialized public safety issue arises in cases where the brush management²¹ requirements cannot be met. An example is a residential lot abutting a publicly-owned open space area, where brush removal, trimming or thinning may be precluded. Another example is a situation where a reduction in the brush management requirements is allowed through alternative compliance. In such cases, the Fire Chief may modify the requirements of brush management on a case-by-case basis. The approval of the Fire Chief must be given in these circumstances in order to avoid a significant public safety impact. See Municipal Code Section 142.0412 (i-j). The environmental analyst should work with LDR-Landscaping Staff and the Fire Chief to ensure the requirements are met. *Ensure brush management activities are coordinated with MSCP staff where there may be potential impacts to MHPA lands.*

INITIAL STUDY QUESTIONS

The following Initial Study Checklist question is from the City's Initial Study Checklist, and provides guidance to determine potential significance for Health and Safety:

Would the proposal:

1. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including when wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

²¹ <http://www.sandiego.gov/fireandems/inspections/brush.shtml>

2. Result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school?
3. Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or environment?
5. Expose people to toxic substances, such as pesticides and herbicides, some of which have long-lasting ability, applied to the soil during previous agricultural uses?

SIGNIFICANCE THRESHOLDS

1. Projects which propose the handling, storage and treatment of hazardous materials, e.g., a Hazardous Waste Facility, falling under Municipal Code Section 141.1001 Hazardous Waste Research Facilities and Section 141.1002” must prepare a risk assessment in conformance with the Tanner Act. The Hazardous Materials Management Division of the County of San Diego Department of Environmental Health (DEH) determines if projects are subject to Tanner Act provisions.

For non-residential projects, instruct the applicant to complete Development Services Department form DS-3163, "Hazardous Materials Questionnaire." See DSD Info Bulletin 116 for more information.

Note: Please include the following in the environmental document as applicable: Existing and recently enacted legislation to protect the public from any potential impacts from the use of hazardous materials. This legislation includes the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation and Liability Act, and the Toxic Substances Control Act.

At the local level the City Fire Department screens inventories of substances and inspects sites every 12 months; the County Health Department screens inventories, inspects facilities every 15 months and reviews the hazardous Materials Business Plan, and the County Air Pollution Control District evaluates projects for possible toxic emissions and issues permits as necessary.

2. Project sites on or near known contamination sources may result in a significant impact. Sources of this information are:
 - a. San Diego County Environmental Assessment Listing. The County of San Diego has an updated listing of all HAZMAT sites on the Internet at:
<http://www.sdcounty.ca.gov/deh/permits/index.html>
 - b. State Department of Toxic Substances Control (DTSC) "Cortese List" of hazardous waste sites compiled pursuant to Section 65962.5 of the California Government Code:
http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm

- c. Other possible sources - Sanborn maps, Fire Department records, topographic/existing conditions surveys.
 - d. Site-specific emission data from the San Diego Air Pollution Control District (SDAPCD) is available on-line at:
<http://www.sdapcd.co.sandiego.ca.us/gtoxics/Project1/SourceEmissions.htm>.
 This database includes a cancer risk estimator index. A score between 1 and 100 generally means that the facility will be required to conduct a Health Risk Assessment.
3. Project sites that meet one or more of the following criteria may result in a significant impact.
- a. Located within 1,000 feet of a known contamination site.
 - b. Located within 2,000 feet of a known “border zone property” (also known as a “Superfund” site) or a hazardous waste property subject to corrective action pursuant to the Health and Safety Code.
 - c. DEH site file closed. Especially important where excavation (e.g., sewer/water pipeline projects, below grade parking, basements) is involved. DEH often closes a listing when there is no longer danger to the existing use on the property. Where a change in use is proposed DEH should be consulted. Excavation, which would disturb contaminated soils, potentially resulting in the migration of hazardous substances (e.g., along utility trench lines), would require consultation by the applicant and analyst with DEH. The applicant may be required to obtain a concurrence letter from DEH subsequent to participation in the Voluntary Assistance Program (www.co.san-diego.ca.us/deh/Iwq/sam)
 - d. Located in Centre City San Diego, Barrio Logan or other areas known or suspected to contain contamination sites (Check with DEH).
 - e. Located on or near an active or former landfill. Hazards associated with methane gas migration and leachates should be considered. Consult with the Local Enforcement Agency (LEA) for assistance.
 - f. Properties historically developed with industrial or commercial uses which involved dewatering (the removal of groundwater during excavation), in conjunction with major excavation in an area with high groundwater (such as downtown).

Where dewatering is involved, prior to issuance of any permit that would allow excavation which requires dewatering, a plan for disposal of the dewatering effluent and a permit, if needed, from the Regional Water Quality Control Board or the Industrial Waste Division of MWWD, shall be provided to LDR by the applicant. A Dewatering Discharge Permit (NPDES No. CA 1018804) shall be obtained for the removal and disposal of groundwater (if necessary) encountered during construction. Discharge under this permit will require compliance with a number of physical, chemical, and thermal parameters (as applicable), along with pertinent site-specific conditions, pursuant to

direction from the RWQCB. Wells, including test wells, and soil percolation tests are not considered dewatering activities.

- g. Projects located in the Runway Protection Zone (RPZ), the Airport Environs Overlay Zone (AEOZ), or the Airport Approach Overlay Zone (AAOZ) or where the Federal Aviation Administration (FAA) has reached a determination of "hazard" through FAA Form 7460-1, "Notice of Proposed Construction or Alteration" as required by FAA regulations in the Code of Federal Regulations (CFR) Title 14 §77.13. Note: if the FAA determines the project would be considered a hazard, a Site Development Permit (SDP) in accordance with Process 5 would be required for Council approval in accordance with the Municipal Code §126.0502(e).

Inconsistency with an airport's Comprehensive Land Use Plan (CLUP) as adopted by the Airport Land Use Commission (ALUC) would be a significant impact.

Note: CEQA, Section 21096 and CEQA State Guidelines Section 15154 requires this land use/health and safety analysis.

- h. Located on a site presently or previously used for agricultural purposes. Pesticides are routinely used during agricultural operations. Pesticides do not degrade easily; therefore, a soils assessment may be required. Contact the San Diego County Department of Environmental Health Site Assessment and Mitigation Program for guidance regarding each project site.

Health and Safety Information References:

DSD Form DS-3163:

<http://www.sandiego.gov/development-services/industry/pdf/ds-3163.pdf>

Hazardous Materials Questionnaire, Bulletin 116: <http://www.sandiego.gov/development-services/industry/pdf/dsd116.pdf>

SDMC Section 142.0412:

<http://clerkdoc.sannet.gov/legtrain/mc/MuniCodeChapter14/Ch14Art02Division04>

SDMC Section 141.1001 and 141.1002:

<http://clerkdoc.sannet.gov/legtrain/mc/MuniCodeChapter14/Ch14Art01Division10>

Sanborn maps: available at LDR offices

Fire Department records: available at <http://www.sandiego.gov/fireandems/inspections/searches.shtml>

San Diego Local Enforcement Agency: Vicky Gallagher, (619) 533-3695

Discharge Permit from MWWD: (619) 446-5000

Discharge Permit from RWQCB: <http://www.swrcb.ca.gov/stormwtr/construction.html>

Airport Environs Overlay Zone (Diagram 132-03A): available at City Clerk or LDR offices; also, located in LDC Chapter 13, Article 2, Division 3

Runway Protection (Airport Approach Overlay) Zone (Diagram 132-02A): available at City Clerk or LDR offices; also, located in LDC Chapter 13, Article 2, Division 2.

G. HISTORICAL RESOURCES

Historical resources include all properties (historic, archaeological, landscapes, traditional, etc.) eligible or potentially eligible for the National Register of Historic Places, as well as those that may be significant pursuant to state and local laws and registration programs such as the California Register of Historical Resources or the City of San Diego Historical Resources Register.

“Historical resource” means site improvements, buildings, structures, historic districts signs, features (including significant trees or other landscaping), places, place names, interior elements and fixtures designated in conjunction with a property, or other objects of historical archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to the citizens of the City and the region. They include buildings, structures, objects, archaeological sites, districts or landscapes possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to be used. Historical resources also include traditional cultural properties.

The following definitions are based, for the most part, on the California Office of Historic Preservation’s (OHP) “Instructions for Recording Historical Resources” and are used to categorize different types of historical resources when they are recorded.

A “building” is a construction created principally to shelter any form of human activity (e.g., a house, barn, church, hotel or similar construction). The term building may also be used to refer to a historically and functionally related unit, such as a courthouse and jail or a house and barn.

The term “structure” is used to distinguish buildings from those functional constructions usually made for purposes other than creating human shelter. Constructed by humans, structures include large scale engineering projects such as water control systems (e.g. dams, reservoirs, aqueducts, water towers, etc.) or transportation systems (e.g., railroads, bridges, roads, trails, etc.), as well as mine shafts, kilns, ovens, light-houses, radio telescopes, etc.

The term “object” is used to distinguish buildings and structures from those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed. Although it may be moveable, by nature or design, an object is associated with a specific setting or environment (i.e. sculpture, monuments, boundary markers, statuary and fountains, etc.).

An “archaeological site” is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure (whether standing, ruined or vanished) where the location itself possesses historical, cultural or archaeological value regardless of the value of any existing structure. Archaeological sites which consist of fewer than three associated artifacts and/or ecofacts within a 40 square meter area are commonly called isolates.

A “district” possesses a significant concentration, linkage or continuity of archaeological sites, buildings, structures, objects, and/or landscapes united historically or aesthetically by plan or physical development. In addition, districts may include a variety of resources as listed above.

A “landscape” may be classified as cultural, designed or rural. A cultural landscape is a geographical area which has been used by people; shaped or modified by human activity, occupation or intervention; or is imbued with significant value in the belief system of a culture or

society. A designed landscape is consciously laid out by a professional designer according to academic or professional standards, theories or philosophies of landscaped architecture; or by an amateur using a recognized style or tradition. It may have a historical association with a significant person, trend or event in landscape gardening or landscape architecture, or a significant relationship to the theory or practice of landscape architecture. A rural historic landscape is a geographic area that historically has been used by people, or shaped or modified by human activity, occupancy or intervention. It is usually a district possessing a significant concentration, linkage, or continuity of land use, vegetation, buildings, structures, roads, waterways and natural features. In this concentration, it provides a distinct sense of time and place.

A “traditional cultural property” is a locale which has been, and often continues to be of religious, mythological, cultural, economic and/or social importance to an identifiable ethnic group. This includes sacred area where religious ceremonies have been or currently are practiced or which are central to a group’s origins as a people. Also included are areas where plants or other materials have been or currently are gathered for food, medicine or other economic purposes. These kinds of traditional cultural properties may not possess physical evidence of human activities. Traditional cultural properties also include neighborhoods which have been modified over time by ethnic or folk group use in such a way that the physical and cultural manifestations of the ethnic or folk culture are still distinguishable today. Cultural expressions shared within familial, ethnic, occupational, or regional groups include but are not limited to; technical skill, language, music, oral history, ritual, pageantry, and handicraft traditions which are learned orally, by limitation or in performance, and are generally maintained without benefit of formal instruction or institutional direction. Physical features may include: distinctive landscape and settlement patterns, architectural topologies, materials and methods of construction, and ornamental detailing.

It is important to note, that the different kinds of historical resources described above may not be mutually exclusive. Historic buildings, structures and/or objects are frequently associated with archaeological sites. Similarly, archaeological sites may also comprise traditional cultural properties for the Native American community.

1. Impacts

The impact assessment is based on the Area of Potential Effect (APE) which includes the area of both the direct and indirect impacts of a proposed project on a historical resource.

The potential for cumulative impacts to historical resources must also be assessed for significance. In order to identify the extent and degree of the impacts, the APE must be established on the proposed project site plan or map. Once the boundaries of the APE have been defined and the resources have been evaluated for significance, the project impacts will be addressed by the City manager based on the project design. If a historical resource is not significant, both the resource and the effect on it must be noted in the Initial Study on the EIR, but will not be considered further in the CEQA process.

2. Direct Impacts

All components of a development must be considered in evaluating potential impacts to historical resources. Direct impacts generally result from activities that will cause damage to or have an adverse effect on the resource, such as but not limited to

- Grading
- Road construction
- Excavation for sewer and water pipelines and appurtenances
- Staging areas
- Access roads
- Demolition, grading and excavation activities
- Deterioration due to neglect
- Alteration or repair of a historic structure
- Inappropriate and/or unauthorized repair
- New addition
- Relocation from original site
- Isolation of a historic resource from its setting, when the setting contributes to its significance
- Soil Stockpiling
- Construction of trails in open space
- Increased awareness or exposure of resource

3. Indirect Impacts

Indirect impacts are included within the APE. In the built environment, indirect impacts include the introduction of visual, audible or atmospheric effect that are out of character with the historic property or alter its setting, when the setting contributes to the property's significance. Examples include, but are not limited to, the construction of a large scale building, structure, object, or public works project that has the potential to cast shadow patterns on the historic property, intrude into its view shed, generate substantial noise, or substantially increase air pollution or wind patterns. Increases in air pollution can result in adverse effects to historically designated buildings (chimney soot, dust, debris, etc.). Increased wind patterns can result in adverse effects to an archaeological site if, through removal of vegetation or structure, the wind exposes the site or feature that was previously protected from the wind. Conversely, an adverse effect could occur from blocking a natural wind pattern at a sacred site where the wind is integral to the ritual or experience.

For archaeological resources and traditional cultural properties, indirect impacts are often the result of increased public accessibility to resources not otherwise subject to impacts which may result in an increased potential for vandalism and site destruction. Placing sites into open space does not always mean that there will not be the potential for indirect impacts to the resource. Therefore, resources placed into open space need to be evaluated for indirect impacts.

4. Cumulative Impacts

Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. According to the City's Historical Resources Guidelines (April 2001), the loss of a historical resource database due to mitigation by data recovery may be considered a cumulative impact. In the built environment, cumulative impacts most often occur to districts, where several minor changes to contributing properties, their landscaping, or to their setting over time could result in a significant loss of integrity to the district as a whole.

INITIAL STUDY CHECKLIST QUESTIONS

The following are from the City's Initial Study Checklist and provides guidance to determine potential significance to Historical Resources.

Will the proposal result in:

1. An alteration, including the adverse physical or aesthetic effects and/or the destruction of a prehistoric or historic building (including an architecturally significant building), structure, or object or site?
2. Any impact to existing religious or sacred uses within the potential impact area?
3. The disturbance of any human remains, including those interred outside of formal cemeteries?

SIGNIFICANCE THRESHOLDS

Federal, state and local criteria have been established for the determination of historical resource significance. The Historical Resources Regulations of the Land Development Code pertain only to historical resources that meet the definitions contained in Chapter 11, Article 3, Division 1 of the Code and may differ from the definition of historical resources in these Guidelines and from a determination of significance under CEQA, as provided below.

NATIONAL REGISTER OF HISTORIC PLACES

The National Register criteria, contained in National Register Bulletin 16 (U.S. Department of the Interior 1986:1), state that: The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and;

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction; or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- D. That have yielded, or may be likely to yield information important in prehistory or history.

Criteria Considerations Exceptions: Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years will not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- C. A birthplace or grave of a historical figure of outstanding importance, if there is no other appropriate site or building directly associated with his or her productive life; or
- D. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
- G. A property achieving significance within the past 50 years, if it is of exceptional importance.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

For the purposes of CEQA, a significant historic resource is one which qualifies for the California Register of Historical Resources or is listed in a local historic register or deemed significant in a historical resource survey, as provided under Section 5024.1(g) of the Public Resources Code. A resource that is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant for purposes of CEQA.

The City's determination of significance of impacts on historical and unique archaeological resources is based on the criteria found in Section 15064.5 of the State CEQA Guidelines. For additional information, see the City's Historical Resources Guidelines.

CITY OF SAN DIEGO PROGRESS GUIDE AND GENERAL PLAN

Significance criteria as outlined in the Progress Guide and General Plan reflect a broad definition of historical, architectural and cultural importance; a perspective of local, rather than state or national significance; and the belief that all aspects of history are potentially of equal importance.

CITY OF SAN DIEGO HISTORICAL RESOURCES REGISTER

Any improvement, building, structure, sign, interior element and fixture, site, place, district, area or object may be designated as historic by the City of San Diego Historical Resources Board if it meets any of the following criteria:

- A. Exemplifies or reflects special elements of the City's, a community's or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development;
- B. Is identified with persons or events significant in local, state or national history;
- C. Embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;
- D. Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman;
- E. Is listed on or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the California OHP for listing on the State Register of Historical Resources; or
- F. Is a finite group of resources related to one another in a clearly distinguishable way; or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value; or which represent one or more architectural periods or styles in the history and development of the City.

CITY OF SAN DIEGO CEQA SIGNIFICANCE

As stated above, if a resource is not listed in, or determined eligible for listing in, the California Register, not included in a local register, or not deemed significant in a historical resource survey, it may nonetheless be historically significant. The significance of an historical resource is based on the potential for the resource to meet one or more of the criteria presented above, including the potential to address important research questions as documented in a site specific technical report prepared as part of the environmental review process. Research priorities for the prehistoric, ethnohistoric and historic periods of San Diego history are discussed in Appendix A (San Diego History) to the City's "Historical Resources Guidelines" and should be used in the

determination of historical significance. As a baseline, the City of San Diego has established the following criteria to be used in the determination of significance under CEQA.

An archaeological site must consist of at least three associated artifacts/ecofacts (within a 40 square meter area) or a single feature. Archaeological sites containing only a surface component are generally considered not significant, unless demonstrated otherwise. (Testing is required to document the absence of subsurface deposit.) Such site types may include isolated finds, bedrock milling stations, sparse lithic scatters, and shellfish processing stations. All other archaeological sites are considered potentially significant. The determination of significance is based on a number of factors specific to a particular site, including site size, type and integrity; presence or absence of a subsurface deposit, soil stratigraphy, features, diagnostics, and datable material; artifact and ecofact density; assemblage complexity; cultural affiliation; association with an important person or event; and ethnic importance.

The determination of significance for historic buildings, structures, objects and landscapes is based on age, location, context, association with an important person or event, uniqueness, and integrity.

A site will be considered to possess ethnic significance if it is associated with a burial or cemetery; religious, social or traditional activities of a discrete ethnic population; an important person or event as defined by a discrete ethnic population; or the belief system of a discrete ethnic population.

NON-SIGNIFICANT RESOURCE TYPES

Isolates consist of less than three artifacts/ecofacts within a 40 square meter area. Sparse Lithic Scatters are identified and evaluated based on criteria from the OHP's "California

Archaeological Resource Identification and Data Acquisition Program; Sparse Lithic Scatters" (February 1988). Isolated Bedrock Milling Stations are defined as having no associated site within a 40 meter radius and lacking a subsurface component. Shellfish Processing Sites are defined as containing a minimal amount of lithics (i.e. less than five or six) and no subsurface deposit.²²

Historic buildings, structures, objects and landscapes are generally not significant if they are less than 45 years old. A non-significant building or structure located within an historic district is by definition not significant.

Resources found to be non-significant as the result of a survey and assessment will require no further work beyond documentation of the resources (including site records) and inclusion in the survey and assessment report.

²² If it can be determined by the Principal Investigator that the minimal amount of materials from different classes of lithics on-site represents a significant resource based on their potential to address important research questions, then the resource would no longer fall under the category "non-significant resource type."

H. HYDROLOGY

Hydrology is defined as the science dealing with the properties, distribution, and circulation of surface water, ground water and atmospheric water. The quantity of water which flows in a creek or river is calculated based on historic climactic conditions combined with the watershed characteristics. The slope and shape of the watershed, soil properties, recharge area, and relief features are watershed characteristics which influence the quantity of surface flows.

As land is developed, impervious area is increased, thereby increasing runoff. The increased volume of water in a drainage way may have short-lived, but rather dramatic, impacts during storm events. The potentially adverse impacts include, but are not limited to, property damage and disturbance of wildlife habitat.

INITIAL STUDY CHECKLIST QUESTIONS

The following Initial Study Checklist questions are from the City's Initial Study Checklist, and provide guidance to determine potential significance for impacts in Hydrology:

Would the proposal result in:

1. A substantial increase in impervious surfaces and associated increased runoff?
2. Substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes?

SIGNIFICANCE THRESHOLDS

1. If a project would result in increased flooding on- or off-site there may be significant impacts on upstream or downstream properties and to environmental resources.

Significant impacts may result if the project would impose flood hazards on other properties or if the project proposes to develop wholly or partially within the 100-year floodplain identified in the Federal Emergency Management Agency (FEMA) maps. Compliance with Council Policy 600-14 may provide evidence that an impact is not significant or is mitigated. Policy 600-14 prohibits development within areas of special flood hazard except under certain circumstances. The policy requires approval by the floodplain administrator before construction, development or alteration begins within any area of special flood hazard.

2. If a project would result in decreased aquifer recharge there may be significant impacts on hydrologic conditions and well-water supplies because the area available for aquifer recharge is reduced. When a subsurface water source fails to be recharged by rainfall, its volume will be reduced. Reduced groundwater elevation can affect landholders who are dependent on well water, vegetation, and surface water replenishment. In addition, if a project would result in extraction of water from an aquifer, impacts on hydrologic conditions would be significant if there would be a net deficit in the aquifer volume or a reduction in the local groundwater table.

Projects which would create over 1.0 acres of impermeable hardscape in areas utilizing well-water and projects which would install groundwater extraction wells may result in significant impacts. Analysts should contact the Regional Water Quality Control Board for guidance in

evaluating this type of impact, as the threshold amount of new impermeable surface may vary from case to case.

For commercial or multi-residential projects (a single-family residence is excluded) using groundwater as a source of water supply, the project applicant must address potential impacts to the neighboring wetlands or other developments(as applicable) in the area that rely on groundwater to assure that there is a sustainable groundwater supply for the proposed project. Otherwise, a significant and unmitigated impact could occur and an EIR could be required. Alternatively, the project would need to provide for municipal water.

3. If a project would grade, clear, or grub more than 1.0 acre of land, especially into slopes over a 25% grade, and would drain into a sensitive water body or stream there may be significant impacts on stream hydrology if uncontrolled runoff results in erosion and subsequent sedimentation of downstream water bodies.
4. If a project would result in modifications to existing drainage patterns there may be significant impacts on environmental resources such as biological communities and archaeological resources.

Projects where drainage patterns are influenced such that existing vegetation would decline because long- or short-term, soil-plant-water relationships would no longer meet habitat requirements. A project would generally have a significant hydrologic impact on biological resources if the project would result in a degradation in the function and value of the existing habitat or if the project would alter the habitat type.

Projects which would result in substantial changes to stream-flow velocities or quantities may result in a significant impact (to be determined on a case by case basis; streambed characteristics will affect determination). Refer to the project's hydrology study, if any, for the analysis of this issue.

There may be significant impacts on downstream properties and/or environmental resources if drainage patterns are changed. Projects which, when identified in a drainage study would cause adverse impacts on downstream properties or environmental resources as a result of a change in the drainage pattern would result in a significant impact. Refer to the project's hydrology study for the analysis of this issue.

Hydrology References:

FEMA Maps: Maps can be accessed at the FEMA website at www.FEMA.org. Click on the FEMA Flood Map Store, then click on Map Search. Use the free "how-to" guidelines and be aware a "plus sign" icon may be shown next to the view button if any map revisions (LOMRs) have occurred. Click on the plus sign to review the map revisions.

I. LAND USE

In accordance with state planning and zoning law, the City of San Diego has adopted a Progress Guide and General Plan which provides a comprehensive long-term plan for the development of the City. The City is in the process of updating the General Plan and has recently adopted the Strategic Framework Element (City of Villages) as part of this update. Consistency with the Strategic Framework Element should be discussed and evaluated as appropriate in environmental documents.

In addition, the City has adopted community and specific/precise plans which provide growth development goals and guidelines for the various communities and subareas. These plans include land use elements and also may include design, resource management and environmental elements or goals. The City of San Diego MSCP Subarea Plan also contains guidelines for development within and adjacent to the MHPA.

The project should be assessed for consistency with any of the adopted plans and regulations (City of San Diego Municipal Code) which govern the particular site. An inconsistency with a plan is not necessarily a significant environmental impact; the inconsistency would have to relate to an environmental issue to be considered significant under CEQA.

INITIAL STUDY CHECKLIST QUESTIONS

The following Initial Study Checklist questions are from the City's Initial Study Checklist, and provide guidance to determine potential significance for Land Use:

Would the proposal:

1. Adversely affect the adopted community plan land use designation for the site or conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over a project?
2. Result in a conflict with the environmental goals, objectives and recommendations of the community plan in which it is located?
3. Conflict with the provisions of the City's Multiple Species Conservation Program Subarea Plan or other approved local, regional or state habitat conservation plan?
4. Physically divide an established community?
5. Result in land uses which are not compatible with an adopted airport Comprehensive Land Use Plan (CLUP)?

SIGNIFICANCE THRESHOLDS

The following may be considered significant land use impacts: (Significant impacts are not necessarily limited to the issues discussed in this list)

1. Inconsistency/conflict with the environmental goals, objectives, or guidelines of a community or general plan.
2. Inconsistency/conflict with an adopted land use designation or intensity and indirect or secondary environmental impacts occur (for example, development of a designated school or park site with a more intensive land use could result in traffic impacts).
3. Substantial incompatibility with an adopted plan. For example: a rock crusher in a residential area would result in land use conflicts related to environmental consequences (i.e. noise), and environmental impacts would result. As a general rule, projects that are consistent with the zoning and compatible with surrounding uses should not result in land use impacts.
4. Development or conversion of general plan or community plan designated open space or prime farmland²³ to a more intensive land use.
5. Incompatible uses as defined in an airport land use plan or inconsistency with an airport's Comprehensive Land Use Plan (CLUP) as adopted by the Airport Land Use Commission (ALUC) to the extent that the inconsistency is based on valid data. CEQA, Section 21096 and 15154 requires this land use/health and safety analysis. For additional information, consult the California Airport Land Use Planning Handbook,^{23 & 25} or the applicable Comprehensive Land Use Plan (CLUP):
 - Brown Field (adopted September 21, 1981)
 - Montgomery Field (adopted July 27, 1984)
 - MCAS Miramar (adopted September 28, 1990, amended September 25, 1992)
 - Lindbergh Field (adopted February 28, 1992, amended April 22, 1994)
6. Inconsistency/conflict with adopted environmental plans for an area. For example, a use incompatible with MSCP for development within the MHPA would fall into this category.
7. Significantly increase the base flood elevation for upstream properties, or construct in a Special Flood Hazard Area (SFHA) or floodplain/wetland buffer zone.

²³ <http://www.consrv.ca.gov/DLRP/fmmp/pubs/soils/sandiego.pdf>

²⁵ <http://www.dot.ca.gov/hq/planning/aeronaut/documents/ALUPHComplete-7-02rev.pdf>

J. MINERAL RESOURCES

A project could cause a potentially significant impact to mineral resources if it resulted in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. An impact could also result from the loss of availability of a locally important mineral resource recovery site identified in a general plan, specific plan, or other land use plan.

For the purpose of CEQA analysis, "mineral resources" refers to aggregate resources. Aggregate consists of sand, gravel, and crushed rock. Aggregate provides bulk and strength in construction materials such as portland cement concrete and asphaltic concrete. Blocks of granite rock are quarried for decorative rock, monuments, and surface plaster. Large irregular blocks of stone are quarried for use as riprap. Decomposed granite is taken from pits for use as a base under road pavements and cold-mixed asphaltic pavement.

In accordance with guidelines established by the State Mining and Geology Board, mineral deposits in western San Diego County have been classified into Mineral Resources Zones (MRZs) as follows:

- MRZ1 : areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence;
- MRZ 2: areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists;
- MRZ 3: areas containing mineral deposits, the significance of which cannot be evaluated from available data;
- MRZ 4: areas where available information is inadequate for assignment to any other MRZ.

Note: The State Mining and Geology Board maps may be purchased by visiting the following web site:

http://www.consrv.ca.gov/cgs/minerals/mlc/SMARA_pubs_2001.pdf

INITIAL STUDY CHECKLIST QUESTIONS

The following are from the City's Initial Study Checklist and provides guidance to determine potential significance to mineral resources:

Would the proposal result in:

1. The loss of availability of a significant mineral resource (e.g. sand or gravel) as identified the Open File Report 96-04, Update of Mineral Land Classification: Aggregate Materials in the Western San Diego County Production – Consumption Region, 1996, Department of Conservation, California Department of Geological Survey (located in the EAS library)?

SIGNIFICANCE THRESHOLDS

In analyzing the potential for impacts to mineral resources, staff should consult the Open File Report 96-04, Update of Mineral Land Classification: Aggregate Materials in the Western San Diego County Production – Consumption Region, 1996, Department of Conservation, California Department of Geological Survey, located in the EAS library. The analyst should answer the following questions:

1. Is the project site located in the MRZ 2 classification area?

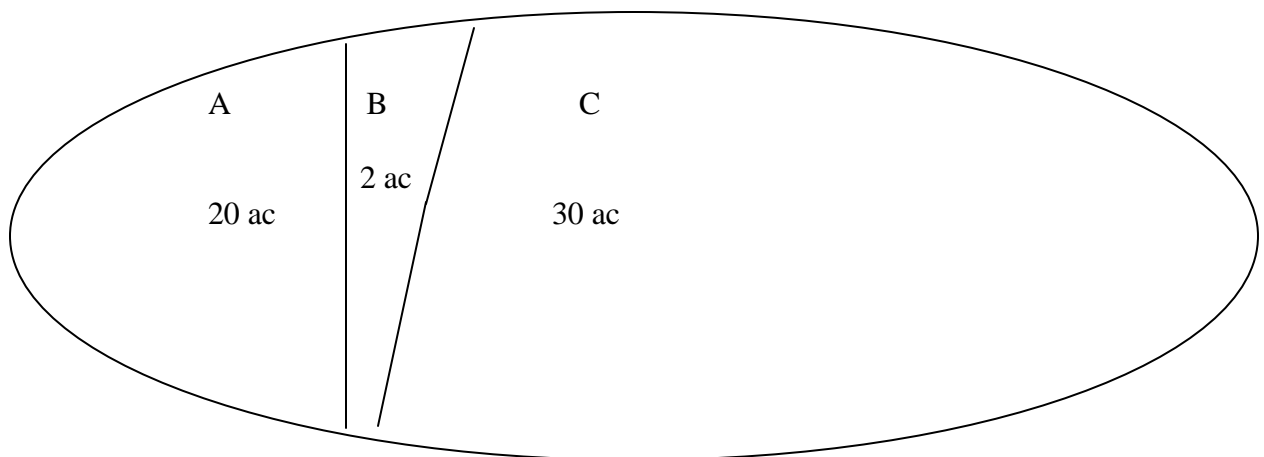
A "yes" answer does not automatically mean that a significant impact should be identified. Additional factors should be considered, using questions 2 through 4.

2. Is the site large enough to allow economically feasible aggregate mining operations?

It is unlikely that a site smaller than 10 acres in size could accommodate economically feasible operations. However, Geology Section staff should be consulted, as more information will be required to make a determination.

3. If the site is too small for an economically feasible mineral resource extraction operation, would its development with the proposed use preclude a mining operation adjacent to or surrounding the site?

For example, in the drawing below, assume that properties A, B, and C are all within the MRZ 2 classification, and property B is too small to support a mining operation. If a residential development were built on property B, it could preclude or substantially interfere with development of a mineral resource extraction project or projects on properties A and C, which are large enough to support economically feasible mineral resource extraction. A significant impact should likely be identified for the residential proposal on property B.



4. Is the site currently being mined?

If an economically feasible mineral extraction operation is the site's current use, and the site is not exhausted, a different use of the site would likely result in a significant impact on the availability of a locally important mineral recovery site.

K. NOISE

Noise is defined as unwanted or objectionable sound. Noise levels compatible with a person's life, health and enjoyment of property are regulated by Local, State, and Federal regulations, including the City of San Diego Progress Guide and General Plan, City Noise Abatement and Control Ordinance, California Noise Insulation Standards (Title 24), the State Public Utilities Code regulating airports, and other regulations. A direct and/or indirect noise impact should be evaluated in relation to applicable City standards, particularly, the City of San Diego Progress Guide and General Plan (Transportation Element). The following significance thresholds are in accordance with the City's Progress Guide and General Plan (Transportation Element) Land Use Compatibility with Annual Community Noise Equivalent Levels (CNEL).

Measurement of sound involves three variables, (1) magnitude; (2) frequency; and (3) duration. Noise levels in the City of San Diego are expressed and compared as dB (A) CNEL.

Definitions

The following definitions shall have the same meaning as defined in the Section 59.5.0102 of the City of San Diego Municipal Code:

A-Weighting

As in decibel A-weighting (dB [A]). Represents the frequency characteristics of the average human ear for various sound intensities. An A-Weight sound filters out lower frequencies, and provides a good indicator of the annoyance potential of a noise.

Average Sound Level

A sound level typical of the sound levels at a certain place during a given period of time, averaged by the general rule of combination for sound levels, said general rule being set forth in American National Standard Specifications for Sound Level Meters 1.4-1971. Average sound level is also called equivalent continuous sound level. (L_{eq})

Community Noise Equivalent Level (CNEL)

An average sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and after addition of ten (10) decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

CNEL recognizes that noise annoyance is related to duration, how often the noise is present, how long it persists, and when it occurs.

Decibel (dB)

A unit measure of sound (noise) level.

Just as feet is used to measure distances, decibels are used to measure sound (noise) levels. The decibel is defined as 10 times the common logarithm of the ratio of two amounts of sound power.

The human ear can hear sounds from less than 10 dB to over 100 dB (sounds which are 100,000 times greater than the faintest sounds). Table K-1 shows the approximate relationship between sound level changes and people's judgment of the relative loudness of the change.

**Table K-1
RELATIVE LOUDNESS**

Sound Level Change	Acoustic Energy Change	Relative Loudness
0 dB	0	Reference Point
3 dB	50 %	Perceptible Change
10 dB	90 %	Twice as Loud
20 dB	99 %	Four Times as Loud
30 dB	99.9 %	Eight Times as Loud
40 dB	99.99 %	Sixteen Times as Loud

Source: Miller 1989 pg. 1-6

Noise Level

The same as sound level. The terms may be used interchangeably.

Sound Level

In decibels, that quantity measured with a sound level meter as defined herein, by use of the “A” frequency weighting and “fast” time averaging unless some other time averaging is specified.

Sound Level Meter

An instrument for the measurement of sound, including a microphone, an amplifier, an attenuator, networks at least for standardized frequency weighting A, and an indicating instrument having at least the standardized dynamic characteristic “fast,” as specified in American National Standard Specification for Sound Level Meters S1. 4-1971 or its successor.

INITIAL STUDY CHECKLIST QUESTIONS

The following questions are from the City’s Initial Study Checklist and are used to provide guidance to determine potential significant impacts related to Noise:

Would the project:

1. Result or create a significant increase in the existing ambient noise levels?
2. Exposure of people to noise levels which exceed the City's adopted noise ordinance or are incompatible with Table K-4?
3. Exposure of people to current or future transportation noise levels which exceed standards established in the Transportation Element of the General Plan or an adopted airport Comprehensive Land Use Plan?
4. Result in land uses which are not compatible with aircraft noise levels as defined by an adopted airport Comprehensive Land Use Plan (CLUP)?

SIGNIFICANCE THRESHOLDS

1. Interior and Exterior Noise Impacts from Traffic Generated Noise (Table K-2 below provides the general thresholds of significance for uses affected by traffic noise.)

Table K-2
TRAFFIC NOISE SIGNIFICANCE THRESHOLDS
(db(A) CNEL)

Structure or Proposed Use that would be impacted by Traffic Noise	Interior Space	Exterior Useable Space ²⁶	General Indication of Potential Significance
Single-family detached	45 dB	65 Db	Structure or outdoor useable area ²⁷ is < 50 feet from the center of the closest (outside) lane on a street with existing or future ADTs > 7500 ²⁸
Multi-family, schools, libraries, hospitals, day care, hotels, motels, parks, convalescent homes.	- Development Services Department (DSD) ensures 45 dB pursuant to Title 24	65 dB	
Offices, Churches, Business, Professional Uses	n/a	70 dB	Structure or outdoor usable area is < 50 feet from the center of the closest lane on a street with existing or future ADTs > 20,000
Commercial, Retail, Industrial, Outdoor Spectator Sports Uses	n/a	75 dB	Structure or outdoor usable area is < 50 feet from the center of the closest lane on a street with existing or future ADTs > 40,000

Source: 1) City of San Diego Acoustical Report Guidelines (December 2003) and 2) City of San Diego Progress Guide and General Plan (Transportation Element)

2. HUD-Funded projects and Noise

If a project is receiving U.S. Department of Housing and Urban Development (HUD) funding, noise analysis and mitigation must be in accordance with the HUD Noise Guidebook²⁹ Minimum attenuation requirements are prescribed in Title 24 of the Code of

²⁶ If a project is currently at or exceeds the significance thresholds for traffic noise described above and noise levels would result in less than a 3 dB increase, then the impact is not considered significant.

²⁷ Exterior usable areas do not include residential front yards or balconies, unless the areas such as balconies are part of the required usable open space calculation for multi-family units.

²⁸ Traffic counts are available from:

- San Diego Regional Association of Governments (SANDAG) Regional Economic Development Information
- System (**REDI**): <http://cart.sandag.org/ca.us/REDI/>
- **SANDAG Traffic Forecast Information Center**: <http://pele.sandag.org/trfic.html>

²⁹ <http://www.hud.gov/offices/cpd/energyenviron/environment/resources/guidebooks/noise/index.cfm>

Federal Regulations³⁰ (24 CFR 51.104(a)) which are the HUD Environmental Criteria and Standards.

3. Airport Noise Impacts

If the project is proposed within the Airport Environs Overlay Zone (AEOZ) as defined in Chapter 13, Article 2, Division 3 of the San Diego Municipal Code, the potential exterior noise impacts from aircraft noise would not constitute a significant environmental impact.

However, interior noise impacts will be regulated by the requirement for residential development within the AEOZ to reduce interior noise levels attributable to airport noise to 45 dB Community Noise Equivalent Level (CNEL). Interior noise levels for new construction of multi-family units are addressed by the Building Development Review Division (BDR) of the City's Development Services Department (DSD) and do not need to be mitigated through conditions in the environment report, but the BDR requirements should be noted. BDR requires additional insulation and upgraded building materials so that interior noise levels do not exceed 45 dB(A) CNEL. The requirements for an acoustical testing are defined in the City of San Diego Municipal Code, Chapter 13, Article 2, Division 3, §132.0308, "Acoustical Testing of Interior Noise Levels."

Requirements for noise studies are found in the Municipal Code at Chapter 13, Article 2, Division 3, §132.0308. This section of the municipal code applies to "development" as defined at, § 113.0103 to include "constructing, reconstructing, converting, establishing, altering, maintaining, relocating, demolishing, using, or enlarging any building, structure, improvement, lot, or premises."

Remodels and additions to single-family and multi-family residences subject to airport noise levels above 65 dB (A) CNEL ordinarily would not be considered a significant issue and a noise study would not be required for the purposes of CEQA analysis. However, new construction of hospitals, schools, day care centers, or other sensitive uses subject to airport noise levels in excess of 65 dB(A) CNEL would be considered a significant issue and a noise study would be required that could recommend measures to mitigate potential noise impacts to a level below significance. Table K-3 below addresses the general impacts from airport noise thresholds.

³⁰ <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1>

**Table K-3
IMPACTS FROM AIRPORT NOISE**

Structure or Proposed Use that would be impacted by Airport Noise	Regulation
Structure within an AEOZ	Exterior noise is one factor in determining land use compatibility. See Table K-4 and the applicable Comprehensive Land Use Plan (CLUP).
New Single Family and Multi-family	Building Development Review Division (BDR) of Development Services Department (DSD) ensures 45 dB interior noise levels. Discuss Airport noise impact & BDR requirements (insulation and upgraded building materials to ensure 45 dB(A) CNEL) in environmental document See also § 132.0309 Requirement for Avigation Easement
Remodels and additions to existing single and multi-family	Noise study & mitigation not required for airport noise > 65 dB(A) CNEL. See also § 132.0309 Requirement for Avigation Easement . For development within the 60 dB CNEL contour of Lindbergh Field the applicant must demonstrate that indoor noise levels that are attributable to airport operations shall not exceed 45 dB. Refer to § 132.0306 of the Municipal Code.
New construction of hospitals, schools, day care centers or other sensitive uses	Noise study and mitigation required for airport noise > 65 dB(A) CNEL. See also § 132.0309 Requirement for Avigation Easement .

4. Noise from Adjacent Stationary Uses (Noise Generators)

A project which would generate noise levels at the property line which exceed the City's Noise Ordinance Standards is considered potentially significant (such as potentially a carwash or projects operating generators or noisy equipment).

If a non-residential use, such as a commercial, industrial or school use, is proposed to abut an existing residential use, the decibel level at the property line should be the arithmetic mean of the decibel levels allowed for each use as set forth in Section 59.5.0401 of the Municipal Code. Although the noise level above could be consistent with the City's Noise Ordinance Standards, a noise level above 65 dB (A) CNEL at the residential property line could be considered a significant environmental impact.

5. Impacts to Sensitive Wildlife

Noise mitigation may be required for significant noise impacts to certain avian species during their breeding season, depending upon the location of the project such as in or adjacent to an MHPA, whether or not the project is occupied by the California gnatcatcher, least Bell's vireo, southern willow flycatcher, least tern, cactus wren, tricolored blackbird or western snowy plover, and whether or not noise levels from the project, including construction during the breeding season of these species would exceed 60dB(A) or existing ambient noise level if above 60dB(A). In addition, please note that significant noise impacts to the California gnatcatcher are only analyzed if the project is within an MHPA; there are no restrictions for the gnatcatcher outside the MHPA any time of year. Please see Biological Resources Section, Step 2, Note (f).

6. Temporary Construction Noise

Temporary construction noise which exceeds 75 dB (A) L_{eq} at a sensitive receptor would be considered significant. Construction noise levels measured at or beyond the property lines of any property zoned residential shall not exceed an average sound level greater than 75-decibels (dB) during the 12-hour period from 7:00 a.m. to 7:00 p.m. In addition, construction activity is prohibited between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, that would create disturbing, excessive, or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404.

Additionally, where temporary construction noise would substantially interfere with normal business communication, or affect sensitive receptors, such as day care facilities, a significant noise impact may be identified.

7. Noise/Land Use Compatibility

Noise is one factor to be considered in determining whether a land use is compatible. Land use compatibility noise factors are presented in Table K-4. Compatible land uses are shaded. Incompatible land uses are unshaded. The transition zone between compatible and incompatible should be evaluated by the environmental planner to determine whether the use would be acceptable based on all available information and the extent to which the noise from the proposed project would affect the surrounding uses.

Table K-4
City of San Diego Noise Land Use Compatibility Chart

<i>Land Use</i>		<i>Annual Community Noise Equivalent Level in Decibels</i>					
		50	55	60	65	70	75
1	Outdoor amphitheaters						
2	Schools, libraries						
3	Nature preserves, wildlife preserves						
4	Residential single-family, multi-family, mobile homes, transient housing						
5	Retirement homes, intermediate care facilities, convalescent homes						
6	Hospitals						
7	Parks, playgrounds						
8	Office buildings, business and professional						
9	Auditoriums, concert halls, indoor arenas, churches						
10	Riding stables, water recreation facilities						
11	outdoor spectator sports, golf courses						
12	livestock farming, animal breeding						
13	Commercial-retail, shopping centers, restaurants, movie theaters						
14	Commercial-wholesale, industrial manufacturing, utilities						
15	Agriculture (except livestock), extractive industry, farming						
16	Cemeteries						

L. PALEONTOLOGICAL RESOURCES

Paleontology is defined as a science dealing with the past geologic periods as understood from fossil remains.

Impacts to paleontological resources may occur through grading activities associated with project construction, especially for large excavations and possibly in urban redevelopment projects where excavation (e.g., for subsurface parking) would be done in previously undisturbed formations. Where the potential for paleontological impacts exists mitigation usually involves on-site paleontological monitoring during excavation so that exposed fossils may be recovered.

INITIAL STUDY QUESTIONS

The following Initial Study Checklist question is from the City's Initial Study Checklist, and provides guidance to determine potential significance for impacts to Paleontological Resources:

Would the project:

1. Impact a significant paleontological resource?

SIGNIFICANCE THRESHOLDS

1. Determine the geological formation underlying a project area. If there are sedimentary rocks such as those found in the coastal areas, they usually contain fossils. If there are granite rocks such as those found in the inland areas (Mission Gorge, etc), they usually will not contain fossils.
2. See Paleontological Determination Matrix.

Note: Significant impacts to paleontological resources are most often mitigated by the implementation of a monitoring program. The monitoring program is carried out under the supervision of a qualified paleontologist and includes pre-grading meetings and inspections during initial cuts. If well-preserved fossils are discovered, measures are implemented to retrieve, adequately preserve, and curate the resources. The qualified paleontologist must also submit a monitoring results report to MMC staff.

Note: Staff uses the Kennedy maps located in the environmental library to determine which formation(s) underlay project sites. Others may contact the following web site where this information may be purchased:

http://www.consrv.ca.gov/CGS/rghm/rgm/250k_index/san_diego.htm

PALEONTOLOGICAL MONITORING DETERMINATION MATRIX

Geological Unit	Potential Fossil Localities	Sensitivity Rating
Alluvium (Qsw, Qal, or Qls)	All communities where this unit occurs	Low
Ardath Shale (Ta)	All communities where this unit occurs	High
Bay Point/Marine Terrace (Qbp)	All communities where unit occurs	High
Cabrillo Formation (Kcs)	All communities where unit occurs	Moderate
Delmar Formation (Td)	All communities where unit occurs	High
Friars Formation (Tf)	All communities where unit occurs	High
Granite/Plutonic (Kg)	All communities where unit occurs	Zero
Lindavista Formation (Qln)	A. Mira Mesa/Tierrasanta B. All other areas	A. High B. Moderate
Lusardi Formation (Kl)	A. Black Mountain Ranch/Lusardi Canyon Poway/Rancho Santa Fe B. All other areas	A. High B. Moderate
Mission Valley Formation (Tmv)	All communities where unit occurs	High
Mt. Soledad Formation (Tm, Tmss, Tmss)	All communities where unit occurs	Moderate
Otay Formation (To)	All communities where unit occurs	High
Point Loma Formation (Kp)	All communities where unit occurs	High
Pomerado Conglomerate (Tp)	A. Scripps Ranch/Tierrasanta B. All other areas	High
River /Stream Terrace Deposits (Qt)	A. South Eastern/Chollas Valley/Fairbanks Ranch/Skyline/Paradise Hills/Otay Mesa, Nestor/San Ysidro B. All other areas	A. Moderate B. Low
San Diego Formation (Qsd)	All communities where this unit occurs.	High
Santiago Peak Volcanics , (Jsp) A. Metasedimentary B. Metavolcanic	A. Black Mountain Ranch/La Jolla Valley, Fairbanks Ranch/Mira Mesa/Penasquitos B. All other areas	A. Moderate B. Zero
Scripps Formation (Tsd)	All communities where this unit occurs	High
Stadium Conglomerate (Tst)	All communities where this unit occurs	High
Sweetwater Formation	All communities where this unit occurs	High
Torrey Sandstone (Tf)	A. Black Mountain Ranch/Carmel Valley B. All other areas	A. High B. Low

Sensitivity Rating Grading Thresholds for Required Monitoring

High = >1000 cubic yards and 10 feet+ deep

Moderate = >2000 cubic yards and 10 feet+ deep

Zero-Low = Monitoring Not Required

Notes: *Monitoring is always required when grading on a fossil recovery site or near a fossil recovery site in the same geologic formation as the project site as indicated on the Kennedy Maps.

**————Monitoring may be required for shallow grading (i.e.<10ft) when a site has previously been graded and/or unweathered formations are present at the surface.

***————Monitoring is not required when grading documented fill.

M. PUBLIC SERVICES and FACILITIES

Appendix G of the CEQA Guidelines asks whether a project would result in substantial adverse physical impacts from the construction or alteration of governmental facilities needed to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. Thus, this and other CEQA guidelines indicate that the Lead Agency may focus the evaluation of impacts on the **physical effects** of constructing or altering public facilities.

However, the guidelines also discuss health and safety issues that can result from the introduction of people to hazardous or overcrowded situations as significant impacts:

Section 15065(d), Mandatory Findings of Significance states, “The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.”

*Section 15126.2 (a) specifically addresses the need to disclose potential significant effects to public services and states, “An EIR shall identify and focus on the significant environmental effects of the proposed project ... Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), **health and safety problems caused by physical changes**, and other aspects of the resource base such as water, historical resources, scenic quality, and **public services**. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. “*

These guidelines provide the basis for differentiating significance thresholds for police and fire-rescue impacts from those of other public services and facilities and provide the basis for determining that impacts to police and fire-rescue response times, including projects which are built in areas where response times are currently substandard, may be significant.

The number, location, and size of public facilities such as public schools, libraries, parks, and other governmental services and facilities should be identified at the community plan level. The City of San Diego Planning Department should coordinate with the appropriate departments in making these determinations. The facilities financing and development impact fees should also be anticipated at this time.

INITIAL STUDY CHECKLIST QUESTIONS

The following questions are from the City's Initial Study Checklist and provides guidance to determine potential significance of impacts on the physical effects of constructing and/or altering Public Services, including the development of Parks and Recreational Resources:

Would the proposal:

1. Have an effect upon, or result in a need for new or altered governmental services in any of the following areas:

Police protection?

Parks or other recreational facilities?

Fire protection?

Maintenance of public facilities, including roads?

Lifeguard Service?

2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

SIGNIFICANCE THRESHOLDS

Public Services

The analyst should evaluate the significance of a project's impacts to public service facilities as follows:

- a. Does the project conflict with the community plan in terms of the number, size, and location of public service facilities?
- b. Are there direct impacts from construction of new public service facilities needed to serve the project? (see also Section E. Growth Inducement)

1. Police and Fire-rescue services

For police and fire-rescue services, the following should also be considered and referred to the Police and/or Fire-Rescue Departments if the project exceeds the threshold of 75 dwelling units or 100,000 square feet of non-residential construction.

- c. Is the project located in a brush fire hazard area, hillside, or an area with inadequate fire hydrant services or street access? (Also see Section F. Health and Safety).
- d. Does the project involve the use, manufacture or storage of toxic, readily-combustible, or otherwise hazardous materials? (Also see Section F. Health and Safety).
- e. Would the project's location provide for adequate SDFD access as determined by Fire and Life Safety staff to be in conformance with the California Fire Code and Fire and Hazard Prevention Services Policy A-00-1?
- f. Would the project substantially affect Police or Fire-Rescue response times (i.e., increase the existing response times in the project area)?

For question “c-f”, the Police and/or Fire Departments will review the project to determine whether it would substantially affect these issue areas as well as following response times:

Police: Priority 1 call goal by neighborhood from current budget
Fire-Rescue: 5 minutes from the time the alarm is received to arrival of the first engine at the scene of the incident (1 minute chute + 4 minute travel) and 9 minute response time (1 minute chute + 8 minute travel) for initial full alarm assignment (3 engines and 1 truck).

The affected department(s) should advise the analyst of whether the impact is due to a lack of facilities, traffic congestion, or a lack of personnel or equipment.

The installation of automatic sprinkler systems in residential structures may not fully mitigate the response time impact if the impact is to police, and/or paramedic response times.

In general, projects with significant impacts resulting from a lack of facilities are not mitigable other than by construction of new facilities which provide the project site with acceptable response times. Larger developments may self-mitigate if they include such facilities. Large and small developers are required to fund construction of new facilities with Developer Impact Facilities (DIFs) and Facility Benefit Assessment Districts (FBAs) as conditions of project approvals to address capital costs of mitigating Police and Fire-Rescue impacts; however, the response time impact would remain significant until such time as the facilities are built and operating.

At the present time, projects with significant impacts due to a lack of personnel or equipment can be mitigated only by continued, mandatory approval by the City Council of the affected department’s budget proposal for operations within the affected area because developers cannot be required to fund ongoing operational costs nor can they make budgetary decisions regarding such funding.

Response time impact due to traffic:	May be mitigable by applicant via traffic improvements depending on scope; otherwise not mitigable until some uncertain time in the future. Therefore, impact would be considered significant.
Response time impact due to lack of facilities:	Not mitigable by applicant AND not mitigable by City for construction in near term (note this is generally not an issue affecting Police response time)
Response time impact due to inadequate budget:	Mitigable by mandatory funding per department requirements.

The Environmental Setting section of the environmental document should identify the stations that provide services to the project site, and should state whether-response times can be achieved

Public Facilities

1. Schools

Senate Bill (SB) 50 was enacted on August 27, 1998. The bill authorized a \$9.2 billion K-12 school and higher education bond to be presented to the voters of California. The state bond measure, known as the “Class Size Reduction Kindergarten - University Public Education Facilities Bond Act of 1998,” was approved by the voters on November 3, 1998.

SB 50 significantly revised developer fee and mitigation procedures for school facilities as set forth in Government Code Section 65996. The legislation holds that the statutory fees are the exclusive means of considering and mitigating school impacts. It does not just limit the mitigation that may be required -- it limits the scope of the review and the findings to be adopted for school impacts. Once the statutory fee is paid, the impact would be mitigated because of the provision that the statutory fees constitute full and complete mitigation.

What this means is that the City is legally prohibited from imposing any mitigation related to school facilities, because the applicants are required by state law to pay school facilities fees.

Environmental documents for larger residential projects should include information provided by the appropriate school districts about the existing conditions and capacities, but should conclude that the impacts are mitigated through the implementation of SB 50. However, project permits can include a measure requiring verification that the statutory fees have been paid prior to the issuance of any notice to proceed with project grading or construction.

2. Libraries

The General Plan establishes guidelines and standards for branch libraries. Ideally, branch libraries should serve a resident population of 30,000 and may be established when a service area, which is expected to grow to 30,000 residents within 20 years of library construction, has a minimum population of 18,000 to 20,000. Branches should be located in areas of intense human activity, with a 2.0-mile maximum service area, where trips can be combined with other daily trips.

The City of San Diego is also part of a county-wide cooperative relationship known as the Serra Cooperative Library System. This system allows residents of the City of San Diego and San Diego County to use the facilities of public libraries.

Environmental documents for medium to large residential projects should identify the location of the nearest branch libraries and the distance of each from the project site. For those projects located on or near the limits of the City of San Diego, the Serra Cooperative Library facilities should also be identified. The provision of adequate libraries is a planning and facilities issue, and project applicants are required to make fair share contributions to the public facilities.

3. Parks and Recreational Resources

The City's General Plan provides the following guidelines for population-based parks:

- a. Neighborhood parks and facilities should serve a resident population of between 3,500 and 5,000 within an approximately half-mile radius. The facility should be five (5) acres in size when located next to an elementary school and 10 acres when the facility must stand alone.
- b. Community parks and recreation centers should serve a resident population of between 18,000 and 25,000 within an approximately 1½-mile radius. The facility should be 13 acres in size when located adjacent to a junior high school and 20 acres when the facility must stand alone.

The General Plan guidelines for resource-based park are as follows:

- a. Resource-based parks should provide approximately 15 to 17 acres per 1,000 residents City-wide. It is important to note that resource-based parks are identified with an area of outstanding scenic, natural, or cultural interest. However, portions of these parks may serve as a community park.

The City's Park and Recreation Department and Planning Department are part of the multi-disciplinary review team for development projects. They are responsible for determining whether there would be a park deficiency within the community planning areas. As with libraries, the provision of parks is a planning and facilities issue.

N. PUBLIC UTILITIES

In view of the continued growth experienced within the City of San Diego, it is the City's goal to ensure that public utilities will be made available on an equitable basis, without jeopardizing human health and safety.

The group of public utilities, as discussed in this section consist of:

- Electrical Power and Natural Gas (Energy) (In evaluating a project's effects on energy conservation in the preparation of Environmental Impact Reports, staff and consultants are directed to Appendix F of the CEQA Guidelines.)
- Solar Energy
- Communication Systems
- Solid Waste Generation / Disposal
- Water and Sewer
- Water Conservation

Utility providers are typically a combination of City, quasi-public agencies, and privately owned companies and corporations.

The utility providers, in coordination with State and Federal agencies that regulate their activities (CPUC, CAISO, FERC, etc.), identify significant shortages and associated impacts to existing and planned utilities that may be created by projects proposed within their service areas. Each utility provider establishes its own threshold criteria for utility capacity and service expansion.

As briefly discussed below, the extension, expansion, rerouting, and construction of new public and private utility needs are generally addressed on a project-by-project basis. With one exception (energy conservation), the analysis of impacts related to public and private utilities should focus on the physical impacts associated with their installation. Such physical impacts should be addressed in their respective impact areas (e.g., biological, archaeological, paleontological resources, etc.). In EIRs, it may be appropriate to consider the growth inducement potential of large utility projects; however, this discussion should be contained in the Growth Inducement section.

The following guidance should be considered in determining whether the utility work could have significant environmental impacts.

Would the removal, construction, and/or relocation of the utility:

- Be compatible with existing and adjacent land uses?
- Change drainage or affect water quality/runoff?
- Affect air quality?
- Affect biological resources including habitat? Consider access road locations.
- Have a negative aesthetic effect? Visual simulations might be necessary.
- Impact historical resources?
- Increase noise levels to sensitive receptors?

INITIAL STUDY CHECKLIST QUESTIONS

The following are taken from the City's Initial Study Checklist and provides guidance on potential significance for the following Public Utilities issues:

Would the proposal:

1. Result in a need for new systems, or require substantial alterations to existing utilities, the construction of which would create physical impacts?

Natural gas?

Communication systems?

Water?

Solid waste disposal?

Sewer?

2. Result in the use of excessive amounts of fuel or energy (e.g. natural gas)?
3. Result in the use of excessive amounts of power?
4. Use of excessive amounts of water?
5. Landscaping which is predominantly non-drought resistant vegetation?

SIGNIFICANCE THRESHOLDS

1. Electrical Power and Natural Gas (Energy)

Electrical power and natural gas service is commonly provided by the San Diego Gas and Electric Company (SDG&E) throughout the San Diego metropolitan area. Power and gas requirements for upcoming development projects are handled on a case-by-case basis, and SDG&E consults with developers to incorporate energy saving devices into project design, where feasible.

Forecasting future electric power and natural gas consumption demand is performed on a continual basis by SDG&E. In situations where projects with large power loads are planned, these new large power loads are considered together with other existing or anticipated future loads in the project vicinity, and electrical substations are upgraded or new substations are built if the capacities of existing substations are exceeded. Direct impacts to electrical and natural gas facilities are addressed and mitigated by SDG&E at the time incoming development projects occur and are not typically evaluated by City staff.

An overall finding that the project would not have a significant environmental effect is not adequate for SDG&E to plan and implement an electric transmission or substation project in accordance with the permitting requirements of the California Public Utilities Commission's General Order 131-D. For SDG&E to be able to comply with GO 131-D and CEQA when its facilities are a component of a larger development project, the environmental document must make a separate finding that the proposed removal and/or construction or relocation of SDG&E's electric facilities as part of the larger project does not have the potential for significant effect on the environment. For additional information, contact SDG&E at (858) 637-3708.

2. Solar Energy

With respect to solar energy, the following projects could be considered to have significant environmental impacts:

- a. Projects not meeting Council Policy 900-14, "Sustainable Building Policy"
- b. Projects that would result in shading of roofs as to preclude future installation of solar systems.

3. Communication Systems

Communications system(s) for telephone, large-scale computer systems, and cable television, are serviced by utility providers such as SBC, AT&T, IBM, and other independent cable companies. Communication system needs for incoming projects are serviced by these utility providers on an as-needed basis.

SBC (formerly Pacific Bell) is mandated by the State Public Utilities Code to provide telephone service wherever it is requested throughout the State of California. SBC, therefore, must provide ongoing telephone service and plan for continual extensions of fiber optic lines. Forecasting future service demand is performed by computerized statistical modeling based on land use patterns, zoning, and other growth indicators. When possible, SBC engineers contact developers regarding future development plans early on in a project's conceptual planning stages, to establish upcoming service demand. For line extensions through remote areas to new development projects, a minimal hook-up fee is charged to the developer.

4. Solid Waste Generation/Disposal

In September 1989, the California Integrated Solid Waste Management Act (also known as Assembly Bill 939 (AB 939)) was enacted into law. It requires each city in the state to divert at least 50% percent of its solid waste from landfill disposal through source reduction, recycling, and composting by 2000. The following solid waste thresholds will help further this requirement through inclusion of solid waste considerations in review and preparation of environmental documents.

Construction/demolition projects meeting or exceeding the following thresholds are considered to have potentially significant solid waste impact based on solid waste generation estimates:

- a. Single Family/Multifamily Construction of 50 units or more
- b. Commercial Construction of 40,000 square feet or more

Use of these thresholds is limited to projects that have a change in land use density or community plan amendment such as a re-zone.

Be aware that some existing Environmental Impact Reports (EIRs) may impose other thresholds and/or mitigation measures such as discussed below:

- **City of Villages Strategic Framework Element Final EIR**
This EIR identifies impacts to solid waste as significant with partial mitigation to extend recycling programs to attached homes and larger businesses, and on-site reuse of demolition materials (see EIR page IV-94).
- **Redevelopment Agency Projects**

The City of San Diego Redevelopment Agency has enacted more stringent thresholds for solid waste impacts in some of its EIRs. If the project is located in a Redevelopment District, consult the applicable EIR to determine the significance threshold and/or mitigation measures. For example, the North Park Redevelopment Project Final EIR (SCH 93-121105) sets a threshold of 10,000 square feet of construction, demolition, or remodeling and requires mitigation to prepare a Waste Management Plan if this threshold is met.

If the project would exceed the significance threshold for solid waste generation, a Waste Management Plan must be prepared by the applicant and approved by the Environmental Services Department (ESD) discussed in the environmental document. The Plan must be implemented by the applicant and address the demolition, construction, and occupancy phases of the project as applicable to include the following:

- a. Tons of waste anticipated to be generated
- b. Material type of waste to be generated
- c. Source separation techniques for waste generated
- d. How materials will be reused on-site
- e. Name and location of recycling, reuse, and landfill facilities where recyclables and waste will be taken if not reused on-site
- f. A "buy recycled" program for green construction products, including mulch and compost
- g. How the project will aim to reduce the generation of construction/ demolition debris
- h. A plan of how waste reduction and recycling goals will be communicated to subcontractors
- i. A timeline for each of the three main phases of the project as stated above
- j. How the recycling space allocation ordinance will be incorporated into construction design of building's waste area.

5. Water and Sewer

Potable water (fresh water) and sewer requirements for incoming development projects are administered by the City Water and Metropolitan Wastewater Departments. Water and sewer demand is handled on a project-by-project basis, where developers are now required to submit water and sewer studies using the measurement of equivalent dwelling units (EDUs). The incorporation of water conservation devices into project designs are encouraged or required, such as the use of low-flush toilets, low-flow faucets, and timers on lawn sprinklers.

In projects with over 30 EDUs, a dual feed water pipeline system is required in case one of the pipelines fails. This is necessary to ensure continual water service to the project and adequate water pressure for fire protection. Also, since July of 1989, all development projects are required to install an additional water pipeline reserved for reclaimed water.

Water and sewer trunk lines are continually monitored in the field to determine remaining levels of capacity. The Engineering Division plans its capital improvement projects several years prior to pipelines actually reaching capacity. It is also the Engineering Division's belief that both the water and sewer system will be able to accommodate future growth.

For projects potentially affecting water and/or sewer lines, the California Department of Health Services Drinking Water Field Operations Branch requires notification if the separation between potable water and sewer or recycled water at any point is less than ten feet horizontal or one foot vertical. A minimum six inch vertical separation is required to be maintained between utilities. Potentially significant impacts could result if these separation distances are not maintained.

Senate Bills 610 and 221

For certain types of large projects (see list below), Senate Bill 610 requires that the environmental document prepared for each project contain a discussion regarding the availability of water to meet the projected water demands of the project for a 20-year planning horizon, including single and multiple dry years. Senate Bill 221 requires the decisionmaker to make a finding that the project's water demands for the planning horizon will be met before approving a Tentative Map.

The types of projects subject to Senate Bills 610 and 221 are the following:

- a. Residential developments of more than 500 units;
- b. Shopping centers or businesses employing more than 1,000 people or having more than 500,000 square feet of floor space;
- c. Commercial office buildings employing more than 1,000 people or having more than 250,000 square feet of floor space;
- d. Hotels or motels having more than 500 rooms;
- e. Industrial, manufacturing, or processing plants or industrial parks planned to house more than 1,000 people or having more than 650,000 square feet of floor space;
- f. Mixed use projects that include one or more of the above types of projects;
- g. Projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

For each of the types of projects listed above, the analyst should send a memo to the Principal Water Resource Specialist at the Water Department, giving the project details and requesting that the water availability analysis be done. The Water Department will coordinate with the County Water Authority, and will provide the analyst with the information needed for the environmental document.

6. Water Conservation

San Diego's arid climate and the fact that the majority of the region's water is imported, results in a limited water supply and availability. The drought cycles have resulted in a water conservation program throughout the City and region. According to San Diego Municipal Code Section 147.04, all buildings, prior to a change in ownership, are required to be certified as having water-conserving plumbing fixtures in place. All residential, commercial, and industrial water customers who receive water from the City of San Diego Water Department are affected by this Ordinance.

In terms of water conservation, the following factors should be considered (list is not inclusive) in determining baseline impacts on water conservation:

A significant impact may result if the following occurs:

1. The project uses excessive amounts of potable water. For example, a golf course use or certain industrial uses result in substantial water usage compared to most other uses. Projects should be encouraged to use reclaimed water whenever possible. See Item 7 below and subitems (b) and (g) in previous discussion regarding Senate Bills 610 and 221.
2. A project is proposing predominantly non-drought resistant landscaping and excessive water usage for irrigation and other purposes. See Section 142.0401 regarding the use of drought-tolerant landscaping.

7. Recycled Water Reuse

Current recycled water use is regulated by Ordinance 0-17327 (“Mandatory Reuse Ordinance”) adopted by the City Council on July 24, 1989. This Ordinance specifies that “recycled water shall be used within the City where feasible and consistent with the legal requirements, preservation of public health, safety, and welfare, and the environment.” Compliance with this Ordinance for new development is made a condition of tentative maps, land use permits, etc. based on the project’s location within an existing or proposed recycled water service area. In addition, the City Water Department is proposing additional retrofit criteria in conjunction with the Public Utilities Advisory Commission. Compliance with the Mandatory Reuse Ordinance is assured via permit conditions and therefore no significance thresholds for CEQA analysis is required. The physical placement of any reuse lines would be analyzed for impacts as part of the normal discretionary process.

O. TRANSPORTATION / CIRCULATION and PARKING

Project-related traffic impacts are one of the most commonly identified environmental impacts under the CEQA. Traffic operations and safety impacts are addressed in this section. Other environmental impacts associated with project-related traffic and transportation infrastructure improvements (e.g., air quality, noise, biology) are addressed in the applicable sections of this manual which pertain to such issues.

Direct traffic impacts are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (near term).

Cumulative traffic impacts are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when affected community plan areas reach full planned build out (long-term cumulative).

It is possible that a project's near term (direct) impacts may be reduced in the long term, as future projects develop and provide additional roadway improvements (for instance, through implementation of traffic phasing plans). In such a case, the project may have direct impacts but not contribute considerably to a cumulative impact.

For intersections and roadway segments affected by a project, level of service (LOS) D or better is considered acceptable under both direct and cumulative conditions.

INITIAL STUDY CHECKLIST QUESTIONS

The following are taken from the City's Initial Study Checklist. They provide guidance on determining the potential significance of impacts to transportation, circulation systems, and parking:

Would the proposal result in:

1. Traffic generation in excess of specific community plan allocation?
2. An increase in projected traffic which is substantial (see table on following page) in relation to the existing traffic load and capacity of the street system?
3. Addition of a substantial amount of traffic to a congested freeway segment, interchange, or ramp as shown in the table on the next page?
4. An increased demand for off-site parking?
5. Effects on existing parking?
6. Substantial impact upon existing or planned transportation systems?
7. Substantial alterations to present circulation movements including effects on existing public access to beaches, parks, or other open space areas?
8. Increase in traffic hazards for motor vehicles, bicyclists or pedestrians due to a proposed, non-standard design feature (e.g., poor sight distance or driveway onto an access-restricted roadway)?
9. A conflict with adopted policies, plans or programs supporting alternative transportation models (e.g., bus turnouts, bicycle racks)?

SIGNIFICANCE THRESHOLDS

The following thresholds have been established to determine significant traffic impacts:

1. If any intersection, roadway segment, or freeway segment affected by a project would operate at LOS E or F under either direct or cumulative conditions, the impact would be significant if the project exceeds the thresholds shown in the table below.
2. At any ramp meter location with delays above 15 minutes, the impact would be significant if the project exceeds the thresholds shown in the table below.
3. If a project would add a substantial amount of traffic to a congested freeway segment, interchange, or ramp, the impact may be significant.
4. Addition of a substantial amount of traffic to a congested freeway segment, interchange, or ramp as shown in the table below?
5. If a project would increase traffic hazards to motor vehicles, bicyclists or pedestrians due to proposed non-standard design features (e.g., poor sight distance, proposed driveway onto an access-restricted roadway), the impact would be significant. Note: analysts should refer readers to a discussion of this issue in the Health and Safety section of the environmental document.
5. If a project would result in the construction of a roadway which is inconsistent with the General Plan and/or a community plan, the impact would be significant if the proposed roadway would not properly align with other existing or planned roadways.
6. If a project would result in a substantial restriction in access to publicly or privately owned land, the impact would be significant.

Level of Service with Project *	Allowable Change Due To Project Impact **					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)
E (or ramp meter delays above 15 min.)	0.010	1.0	0.02	1.0	2.0	2.0
F (or ramp meter delays above 15 min.)	0.005	0.5	0.01	0.5	1.0	1.0

Note 1: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes.

Note 2: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.

* All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual. The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

** If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible mitigation (within the Traffic Impact Study) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see above * note), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the significant impact changes.

KEY: Delay = Average control delay per vehicle measured in seconds for intersections, or minutes for ramp meters
LOS = Level of Service
Speed = Speed measured in miles per hour
V/C = Volume to Capacity ratio

PARKING

Impacts attributable to parking deficiencies are addressed in this section, while impacts related to storm water pollution are addressed in the Water Quality and Biological Resources sections of this manual.

Parking requirements vary by land use and location and are dictated by the City of San Diego Municipal Code and adopted by the City Council policies.

SIGNIFICANCE THRESHOLDS

Non-compliance with the City's parking ordinance does not necessarily constitute a significant environmental impact. However, it can lead to a decrease in the availability of existing public parking in the vicinity of the project. Generally, if a project is deficient by more than ten percent of the required amount of parking and at least one of the following criteria applies, then a significant impact may result:

1. The project's parking shortfall or displacement of existing parking would substantially affect the availability of parking in an adjacent residential area, including the availability of public parking.
2. The parking deficiency would severely impede the accessibility of a public facility, such as a park or beach.

P. VISUAL EFFECTS AND NEIGHBORHOOD CHARACTER

Making the determination of a significant impact on visual quality is highly subjective. Identifying how a proposed development would fit or blend with the existing scale and character of the surrounding developed and natural environment is the key to determining significance. A project may meet all of its height, bulk, scale and zoning requirements and still have a significant visual impact on the environment if it is not in character with the surrounding development and natural landforms.

INITIAL STUDY CHECKLIST QUESTIONS

The following are from the City's Initial Study Checklist and provides guidance to determine potential significance for impacts to Visual Quality and Neighborhood Character.

Would the proposal result in:

1. A substantial obstruction of any vista or scenic view from a public viewing area as identified in the community plan?
2. The creation of a negative aesthetic site or project?
3. Project bulk, scale, materials, or style which would be incompatible with surrounding development?
4. Substantial alteration to the existing or planned character of the area, such as could occur with the construction of a subdivision in a previously undeveloped area? Note: for substantial alteration to occur, new development would have to be of a size, scale, or design that would markedly contrast with the character of the surrounding area.
5. The loss of any distinctive or landmark tree(s), or stand of mature trees as identified in the community plan? (Normally, the removal of non-native trees within a wetland as part of a restoration project would not be considered significant).
6. Substantial change in the existing landform?
7. Substantial light or glare which would adversely affect daytime or nighttime view in the area?

SIGNIFICANCE THRESHOLDS

1. Views

Projects that would block public views from designated open space areas, roads, or parks or to significant visual landmarks or scenic vistas (Pacific Ocean, downtown skyline, mountains, canyons, waterways). To meet this significance threshold, one or more of the following conditions must apply:

- a. The project would substantially block a view through a designated public view corridor as shown in an adopted community plan, the General Plan, or the Local Coastal Program. Minor view blockages would not be considered to meet this condition. In order to determine whether this condition has been met, consider the level of effort required by the viewer to retain the view;
- b. The project would cause substantial view blockage of a public resource (such as the ocean) that is considered significant by the applicable community plan. Unless the

project is moderate to large in scale, condition “c” would typically have to be met for view blockage to be considered substantial;

- c. The project exceeds the allowed height or bulk regulations, and this excess results in a substantial view blockage;
- d. The project would have a cumulative effect by opening up a new area for development, which will ultimately cause “extensive” view blockage. (Cumulative effects are usually considered significant for a community plan analysis, but not necessarily for individual projects. Project level mitigation should be identified at the community plan level). View blockage would be considered “extensive” when the overall scenic quality of a visual resource is changed; for example, from an essentially natural view to a largely manufactured appearance.

2. Neighborhood Character/Architecture:

Projects that severely contrast with the surrounding neighborhood character. To meet this significance threshold, one or more of the following conditions must apply:

- a. The project exceeds the allowable height or bulk regulations and the height and bulk of the existing patterns of development in the vicinity of the project by a substantial margin.
- b. The project would have an architectural style or use building materials in stark contrast to adjacent development where the adjacent development follows a single or common architectural theme (e.g., Gaslamp Quarter, Old Town).
- c. The project would result in the physical loss, isolation or degradation of a community identification symbol or landmark (e.g., a stand of trees, coastal bluff, historic landmark) which is identified in the General Plan, applicable community plan or local coastal program.
- d. The project is located in a highly visible area (e.g., on a canyon edge, hilltop or adjacent to an interstate highway) and would strongly contrast with the surrounding development or natural topography through excessive height, bulk, signage, or architectural projections.
- e. The project would have a cumulative effect by opening up a new area for development or changing the overall character of the area (e.g., rural to urban, single-family to multi-family). As with views, cumulative neighborhood character effects are usually considered significant for a community plan analysis, but not necessarily for individual projects. Project level mitigation should be identified at the community plan level. Analysts should also evaluate the potential for a project to initiate a cumulative effect by building structures that substantially differ from the character of the vicinity through height, bulk, scale, type of use, etc., when it is reasonably foreseeable that other such changes in neighborhood character will follow.

3. Land Form Alteration

Grading

Projects that significantly alter the natural landform. To meet this significance threshold, typically the following conditions must apply:

- a. The project would alter more than 2,000 cubic yards of earth per graded acre by either excavation or fill. Grading of a smaller amount may still be considered significant in highly scenic or environmentally sensitive areas. Excavation for garages and basements are typically not held to this threshold. In addition, one or more of the following conditions (1-3) must apply to meet this significance threshold.
 - 1) The project would disturb steep hillsides in excess of the encroachment allowances of the Environmentally Sensitive Lands regulations (LDC Chapter 14, Article 3, Division 1). In evaluating this issue, environmental staff should consult with permit staff.
 - 2) The project would create manufactured slopes higher than ten feet or Steeper than 2:1 (50 percent).
 - 3) The project would result in a change in elevation of steep hillsides as defined by the SDMC Section 113.0103 from existing grade to proposed grade of more than five feet by either excavation or fill, unless the area over which excavation or fill would exceed five feet is only at isolated points on the site. (A continuous elevation change of five feet may be noticeable in relation to surrounding areas. In addition, such a change may require retaining walls and other features to stabilize slopes, potentially resulting in a manufactured appearance.)
 - 4) The project design includes mass terracing of natural slopes with cut or fill slopes in order to construct flat-pad structures. (This item moved from “Development Features” section below.)
- b. However, the above conditions may not be considered significant if one or more of the following apply:
 - 1) The grading plans clearly demonstrate, with both spot elevations and contours, that the proposed landforms will very closely imitate the existing on-site landform and/or the undisturbed, pre-existing surrounding neighborhood landforms. This may be achieved through “naturalized” variable slopes.
 - 2) The grading plans clearly demonstrate, with both spot elevations and contours, that the proposed slopes follow the natural existing landform and at no point vary substantially from the natural landform elevations.
 - 3) The proposed excavation or fill is necessary to permit installation of alternative design features such as step-down or detached buildings, non-typical roadway or

parking lot designs, and alternative retaining wall designs which reduce the project's overall grading requirements.

4. Development Features

Projects that have a negative visual appearance. To meet this significance threshold, one or more of the following conditions must apply:

- a. The project would create a disorganized appearance and would substantially conflict with City codes (e.g., a sign plan which proposes extensive signage beyond the City's sign ordinance allowance).
- b. The project significantly conflicts with the height, bulk, or coverage regulations of the zone and does not provide architectural interest (e.g., a tilt-up concrete building with no offsets or varying window treatment).
- c. The project includes crib, retaining or noise walls greater than six feet in height and 50 feet in length with minimal landscape screening or berming where the walls would be visible to the public.
- d. The project is large and would result in an exceeding monotonous visual environment (e.g., a large subdivision in which all the units are virtually identical).
- e. The project includes a shoreline protection device in a scenic, high public use area, unless the adjacent bluff areas are similarly protected.

These conditions become even more significant for projects which are highly visible from designated open spaces, roads, parks, or significant visual landmarks. The significance threshold may be lower for such projects. Refer to the project's applicable community plan and the Urban Design Element of the City's Progress Guide and General Plan for more information on visual quality.

5. Light/Glare

Projects that would emit or reflect a significant amount of light and glare. To meet this significance threshold, one or more of the following must apply:

- a. The project would be moderate to large in scale, more than 50 percent of any single elevation of a building's exterior is built with a material with a light reflectivity greater than 30 percent (see LDC Section 142.07330(a)), and the project is adjacent to a major public roadway or public area.
- b. The project would shed substantial light onto adjacent, light-sensitive property or land use, or would emit a substantial amount of ambient light into the nighttime sky. Uses considered sensitive to nighttime light include, but are not limited to, residential, some commercial and industrial uses, and natural areas.

Q. WATER QUALITY

Water quality is affected by sedimentation caused by erosion, by runoff carrying contaminants, and by direct discharge of pollutants (point-source pollution). As land is developed, the new impervious surfaces send an increased volume of runoff containing oils, heavy metals, pesticides, fertilizers and other contaminants (non-point source pollution) into adjacent watersheds.

Degradation of water quality impacts human health, as well as wildlife systems. Sedimentation can cause impediments to stream flow, creating dams and ultimately stagnant pools. In addition, oxygen availability is affected by sedimentation and degradation of water quality. Available oxygen significantly influences aquatic and riparian habitats. Fertilizers can create algal bloom and lead to eutrophication. Eutrophication occurs when waters become rich in mineral and organic nutrients resulting in a proliferation of plant life, especially algae. This, in turn, reduces the dissolved oxygen content in the water and often causes the reduction of biodiversity of the habitat. The ultimate result is negative alteration of the habitat.

The Municipal Storm Water National Pollutant Discharge Elimination System (NPDES) Permit (Municipal Permit), issued on February 21, 2001 to the City of San Diego by the San Diego Regional Water Quality Control Board (Regional Board), requires the development and implementation of storm water pollution best management practices (BMPs), both during construction and in projects' permanent designs, to reduce pollutants discharged from the project site, to the maximum extent practicable. To address pollutants that may be generated from the new development once the site is in use, the Municipal Permit further requires that the City implement a series of permanent BMPs described in the Model Standard Urban Storm Water Mitigation Plan or SUSMP (pronounced "sue-sump") which is contained in the City's Storm Water Standards manual and was approved by the Regional Board on June 12, 2002. The City's Storm Water Standards manual is intended to provide information on how to comply with all of the City's permanent and construction storm water BMP requirements, including the Model SUSMP, for private and public development projects in the City of San Diego.

Compliance with the Water Quality Standards is assured through permit conditions provided by LDR Engineering. Adherence to the City's Stormwater Standards is considered to preclude water quality impacts unless a fair argument is made that a significant impact will still occur.

- The Storm Water Manual is available online at:
<http://www.sannet.gov/developmentservices/news/pdf/stormwatermanual.pdf>
- The Storm Water Requirements Applicability Checklist is available online at:
<http://www.sannet.gov/development services/news/pdf/ds 5601stormwtr.pdf>
- Other state stormwater requirements are available online at:
<http://www.sannet.gov/development services/news/stwmwtrpermit.shtml>

WATER QUALITY SUBMITTAL REQUIREMENTS

1. For every project upon formal project submittal, the applicant must complete and submit the Storm Water Requirements Applicability Checklist in order to determine the project's storm water Best Management Practices (BMPs) requirements during construction and post construction.
2. If the project requires treatment control BMPs, as per the Storm Water Applicability Checklist, the applicant must submit a Water Quality Technical Report consistent with the City of San Diego's Storm Water Standards. The report must include, but not be limited to, BMP maintenance schedules and the responsible party for future maintenance and associated costs. The report must also address water quality by describing the type of pollutants which would be generated during construction and post construction, as well as identifying pollutants to be captured and treated by the proposed BMPs.

BIOLOGICAL RESOURCE REFERENCE

1. If the project discharges into receiving waters within Environmentally Sensitive Lands or waterbodies listed on the Regional Water Quality Control Board 303(d) Impaired Water Body List: <http://www.swrcb.ca.gov/303dupdate.html>, and the potential exists for significant impacts to biological resources, the biological report and the environmental document should discuss the BMPs to be implemented in order to preclude impacts to biological resources. Analysts should note that this potential impact should be addressed in the Biological Resources section of environmental documents.
2. Adverse water quality effects could include:
 - a. stream channelization/hardscaping which may affect water quality by reducing vegetation which shades and cools the water; and
 - b. channel lining which can decrease biological assimilation by increasing flow velocities and/or reducing permeability and adsorption potential (including bacteriological assimilation).

GROUNDWATER

1. If the project would result in the creation of ponded water not related to water quality treatment devices (i.e. detention basins) analysis of groundwater conditions associated with the proposed project may be warranted. A similar analysis may be required if a private sewage disposal system is proposed. Conversely, if the utilization of groundwater resources potentially impacts wetlands or surface flow, or adjacent project(s) dependent on existing groundwater resources, a full hydrogeologic analysis of the proposed development and attendant impacts must be performed.

Note: Projects located within the Los Peñasquitos Lagoon Restoration and Enhancement Fee Boundaries (See Figure 2 of the City's Coastal Development Information Guide, November 1988) are required to pay a fee to the Los Penasquitos Lagoon Enhancement fund. In addition, the projects are required to comply with City Clerk Document No. 00-1 7068, which requires the implementation of certain erosion and siltation control measures during construction for projects draining into Los Peñasquitos or San Dieguito Lagoon. The

requirements, however, do not provide post-construction erosion and pollution controls. Additional mitigation would usually be required in conjunction with the Los Peñasquitos Lagoon requirements.

SIGNIFICANCE THRESHOLDS

Compliance with the Water Quality Standards is assured through permit conditions provided by LDR Engineering for private projects. For public projects compliance is the responsibility of the particular department implementing the project. Adherence to the City's Stormwater Standards is the Water Quality threshold.

If it is determined that BMPs are to be used to protect another specific environmental resource (biological resources, etc.) and these BMPs are above what is required for the project to achieve compliance with the City's Water Quality Standards, the BMPs should be regarded as mitigation measures. The BMPs should be discussed and included as mitigation in the environmental document under the heading of the resource they are meant to protect.

For example, a silt fence around oak trees to avoid siltation of the roots is a biological mitigation measure which should be addressed in the biological resources discussion area of the environmental document.

R. CUMULATIVE IMPACTS

Section 15130 (a)(1) of the CEQA Guidelines states: "As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the Environmental Impact Report (EIR) together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR."

Section 15355 defines cumulative impacts as follows:

"Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Discussion of Contributions To Cumulative Impacts

In October 2002, the California Court of Appeal for the Third District issued a decision in the case *Communities For A Better Environment v. California Resources Agency*, Case No. CO38844 (10/28/02). Among other decisions, the court invalidated the State CEQA Guidelines at 15064(i)(4) and 15130(a)(4) regarding de minimis contributions to cumulative impacts. Under the now invalidated Guideline, an agency could determine that the incremental impacts of a project were not cumulatively considerable when they would make only a "de minimis" contribution to a significant cumulative effect.

However, the court found that "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem. . . . "Since many projects could conceivably contribute to a significant cumulative effect, it is important to consider the incremental effect and determine measures to substantially lessen the cumulative impacts to below a level of significance. The court suggested that the greater the cumulative environmental problem, the lower the threshold should be for determining the significance of a project's contribution to that cumulative problem.

For additional reference on how to consider cumulative impacts, see the report prepared by the United States Council on Environmental Quality (CEQ), "Considering Cumulative Effects under the National Environmental Policy Act (NEPA)."

SIGNIFICANCE THRESHOLDS

CEQA requires a discussion of cumulative impacts when they are significant. The determination of cumulative significance calls for reasonable effort to discover and disclose other related projects. The direct and indirect impacts of each related project need to be identified and looked at comprehensively. CEQA provides various alternative methods to achieve an adequate discussion of cumulative impacts (see CEQA Guidelines Section 15130 noting the repealed sections of 15064(i)(4) and 15130(a)(4)). Some of the sections of this report provide significance determination criteria for cumulative impacts under individual issue areas (e.g. biology, air quality, traffic). However, in general the following rule of thumb should apply for determining significant cumulative impacts:

1. If there are known documented existing significant impacts occurring in a community, additional increments would exacerbate the impact (e.g. an overloaded transportation system).
2. If a community plan and/or precise plan identifies cumulative impacts in the community wide EIR, individual projects which contribute significantly to the community wide impacts would be considered cumulatively significant.
3. A large scale project (usually regional in nature) for which direct impacts are mitigated by the collective number of individual impacts results in a cumulative impact.

S. MANDATORY FINDINGS OF SIGNIFICANCE

CEQA sets forth the three mandatory findings of significance listed below. That is, a potential impact must be considered significant if a Lead Agency determines that any of the mandatory findings of significance apply, and an EIR must be prepared.

INITIAL STUDY QUESTIONS:

1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory?
2. Does the project have possible environmental effects which are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
3. Does the project have environmental effects of a project which would cause substantial adverse effects on human beings, either directly or indirectly?

SIGNIFICANCE THRESHOLDS

The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the agency involved, based to the extent possible on scientific and factual data. An ironclad definition of a significant impact is not possible because the significance of an activity may vary with the setting. For example, an activity which is not significant in an urban area may be significant in a rural area (CEQA Guidelines Section 15064).

According to CEQA Statutes at Section 21082.2:

- (a) The lead agency shall determine whether a project may have a significant effect on the environment based on substantial evidence in light of the whole record.
- (b) The existence of public controversy over the environmental effects of a project shall not require the preparation of an environmental impact report if there is no substantial evidence in light of the whole record before the agency that the project may have a significant effect on the environment.
- (c) Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly in accurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. See also Section 15064(f) (4) and (5) of the CEQA Guidelines.

1. If there is substantial evidence, in light of the whole record before the lead agency, that a project may have a significant effect on the environment, an environmental impact report shall be prepared.
2. Statements in an environmental impact report and comments with respect to an environmental impact report shall not be deemed determinative of whether the project may have a significant effect on the environment.

This key decision as to whether a project may have a significant effect shall be based on substantial evidence in the record. The CEQA Guidelines at Section 15384 define "substantial evidence" as:

- (a) Substantial evidence as used in these guidelines means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to, or are not caused by physical impacts on the environment does not constitute substantial evidence.
- (b) Substantial evidence shall include facts, reasonable assumptions predicted upon facts, and expert opinion supported by facts

In most instances, the evidence in the record provides a clear link to the decision to prepare an EIR, Mitigated Negative Declaration, or Negative Declaration. However, according to the CEQA Guidelines in marginal cases where it is not clear whether there is substantial evidence that a project would have a significant effect on the environment, the Lead Agency is guided by Section 15064 (7)(g) of the CEQA Guidelines:

“After application of the principals set forth above in Section 15064(f), and in marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principal: If there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR.”

T. USE OF REGULATORY STANDARDS AS THRESHOLDS OF SIGNIFICANCE

In October 2002, the California Court of Appeal for the Third District issued a decision in the case *Communities For A Better Environment v. California Resources Agency*, Case No. CO38844 (10/28/02). Among other decisions, the court invalidated the State CEQA Guidelines at 15064(h) which specified that a change in the environment is not a significant effect if the change complies with a regulatory standard found in a statute, ordinance, rule, regulation, or other standard of general application. The court held that Guideline 15064(h) conflicted with CEQA's standard for determining whether to prepare an EIR whenever it can be fairly argued on the basis of substantial evidence that a project may have a significant environmental impact. If there is substantial evidence both for and against preparing an EIR, the agency must prepare the EIR. The court reasoned that Guideline 15064(h) might be construed to allow an agency to avoid preparing an EIR by deeming an impact insignificant based upon compliance with an adopted regulatory standard, even if other substantial evidence supported a fair argument that a significant impact could occur.

Identification of Future Cumulative Projects

The same court case referenced above also invalidated Section 15130(b)(1)(B)2. CEQA requires an agency to consider how a project's impacts will cumulate with the impacts of past, present, and probably future projects. This Guideline provided that probable future projects could be limited to certain categories of projects: projects with a pending application for approval; projects included in adopted agency plans; project anticipated as later phases of previously-approved project; "or" public agency projects for which money has been budgeted. However, the court found that to the extent this section might be read disjunctively to allow a lead agency to include only one category of projects in its list of probably future projects, it invalidated this section. Please refer to Section II.AR. regarding Cumulative Impacts.